



PLANNING COMMISSION WORK SESSION AGENDA
Monday, September 23, 2024 - 6:00 PM
Council Chambers, 169 SW Coast Hwy, Newport, Oregon 97365

All public meetings of the City of Newport will be held in the City Council Chambers of the Newport City Hall, 169 SW Coast Highway, Newport. The meeting location is accessible to persons with disabilities. A request for an interpreter, or for other accommodations, should be made at least 48 hours in advance of the meeting to Erik Glover, City Recorder at 541.574.0613, or e.glover@newportoregon.gov.

All meetings are live-streamed at <https://newportoregon.gov>, and broadcast on Charter Channel 190. Anyone wishing to provide written public comment should send the comment to publiccomment@newportoregon.gov. Public comment must be received four hours prior to a scheduled meeting. For example, if a meeting is to be held at 3:00 P.M., the deadline to submit written comment is 11:00 A.M. If a meeting is scheduled to occur before noon, the written comment must be submitted by 5:00 P.M. the previous day. To provide virtual public comment during a city meeting, a request must be made to the meeting staff at least 24 hours prior to the start of the meeting. This provision applies only to public comment and presenters outside the area and/or unable to physically attend an in person meeting.

The agenda may be amended during the meeting to add or delete items, change the order of agenda items, or discuss any other business deemed necessary at the time of the meeting.

1. CALL TO ORDER

Bill Branigan, Bob Berman, Jim Hanselman, Gary East, Braulio Escobar, John Updike, Dustin Capri, and Greg Sutton.

2. NEW BUSINESS

2.A Community Planning Month Proclamation.

[Memorandum](#)

[Draft Proclamation](#)

2.B Oregon Housing Needs Analysis Rulemaking Process.

[Memorandum](#)

[OHNA - HCA Excerpts](#)

[Draft OHNA Methodology](#)

[DCLD Brief 1 - What is OHNA](#)

[DLCD Brief 2 - How will OHNA be Implemented](#)

2.C Scope of Work for Updating Newport's System Development Charge Methodology.

[Memorandum](#)

[Draft SDC Methodology Update RFP](#)

[Newport SDC Rate Sheet](#)

[Newport 2017 SDC Methodology](#)

[League of Oregon Cities SDC Survey, 2023](#)

[Oregon System Development Charge Study, 2022 \(OHCS\)](#)


3. UNFINISHED BUSINESS

3.A Planning Commission Work Program Update.

[PC Work Program 9-17-24](#)

4. ADJOURNMENT

Memorandum

To: Planning Commission/Commission Advisory Committee
From: Derrick Tokos, Community Development Director 
Date: September 17, 2024
Re: Community Planning Month Proclamation

Attached is a draft copy of a Community Planning Month proclamation that I have prepared for the City Council's consideration at its October 7, 2024 meeting. The American Planning Association annually recognizes October as the month of the year to celebrate the contributions that citizen and professional planners make to enhance their communities. Newport has traditionally acknowledged the contributions of its volunteer committees at an annual banquet; however, that event hasn't been held for a while and I thought this might be a good way to get the word out about the important contributions you and others have made to the city.

Please take a moment to look over the document and let me know if it strikes the right tone. Also, I would appreciate your thoughts on attendance for the Council meeting. At a minimum, it would be helpful to have a representative of the Planning Commission. I also think it would be appropriate to see if Dustin could attend, as the chair of the advisory committee for the City Center Revitalization planning effort. Meg Reed, with DLCD, has been very helpful with Yaquina Bay Estuary Planning work, so I thought I might see if she would be up to attending as well.

Attachments
Draft Proclamation



COMMUNITY PLANNING MONTH PROCLAMATION

WHEREAS, change is constant and affects all cities, towns, suburbs, counties, boroughs, townships, rural areas, and other places; and

WHEREAS, Planning Commissions, Citizen Advisory Committees, and the professional planning staff that support them, can help navigate this change with data-driven insights and expertise that provide better choices for how people work and live; and

WHEREAS, community planning provides an opportunity for residents, employers and other stakeholders to be meaningfully involved in making choices that determine the future of their community; and

WHEREAS, Newport values and embraces the contributions citizens have made to inform and shape significant planning initiatives such as the City's strategy for managing short-term rentals, its recently adopted Housing Production Strategy, the Newport Transportation System Plan, and the ongoing City Center Revitalization planning effort; and

WHEREAS, the full benefits of planning require public elected and appointed officials who understand, support, and demand excellence in planning and plan implementation; and

WHEREAS, the month of October is designated as National Community Planning Month throughout the United States of America and its territories, and

WHEREAS, the American Planning Association (APA) endorses National Community Planning Month as an opportunity to highlight how planning is essential to every community, as they seek to address difficult housing, transportation, and land use questions, and

WHEREAS, the celebration of National Community Planning Month gives us the opportunity to publicly recognize the participation and dedication of appointed planning commission and citizen advisory committee members who have volunteered their time and expertise to the improvement of the City of Newport; and

WHEREAS, we recognize the many valuable contributions made by the professional community and regional and state planning partners, including the dedicated staff at the Department of Land Conservation and Development, and extend our heartfelt thanks for the continued commitment to public service by these professionals;

NOW, THEREFORE, I Jan Kaplan, as Mayor of the City of Newport, do hereby recognize the month of October 2024 as Community Planning Month in the City of Newport in conjunction with the celebration of National Community Planning Month.

Dated: October 7, 2024

Jan Kaplan, Mayor

Memorandum

To: Planning Commission/Commission Advisory Committee
From: Derrick Tokos, Community Development Director
Date: September 17, 2024
Re: Oregon Housing Needs Analysis Rulemaking Process

This will be the first of what is likely to be several updates on how the State is moving forward with the Oregon Housing Needs Analysis (OHNA) rulemaking. On September 12, 2024 the Department of Land Conservation and Development (DLCD) released the draft OHNA methodology for public comment. A copy of the document is enclosed.

The OHNA methodology is intended to standardize forecasting housing needs for all cities and counties in the state, based upon their geographic region. It includes an estimated total number of needed housing units over a 20-year period at both the region and local government levels. The estimates include a front-loaded annual target, along with the number of needed units at different affordability levels. The State is looking to finalize the methodology by January 1, 2025, and it is my understanding that local jurisdictions will be required to use its forecasts when updating their Housing Capacity Analysis and Housing Production Strategies.

The City of Newport completed its Housing Capacity Analysis in 2022 and developed a Housing Production Strategy, based on that analysis, that was ultimately adopted by the City Council and approved by the State in October of 2023. Action items contained in the City's Housing Production Strategy are what the City will be held to when it submits its four-year, mid-cycle progress report to DLCD in 2027. Unless there are further changes to state law, the City shouldn't have to update its Housing Capacity Analysis using the forecast from the OHNA methodology until 2031.

Beth Goodman with ECONorthwest, who helped with our recently adopted Housing Capacity Analysis, reached out to draw my attention to a table on page 60 of the document, which includes Newport's total forecast for the 20-year planning period. A copy of the table is enclosed, along with excerpts from the City's 2022 Housing Capacity Analysis with its forecast of housing need. It is quite an increase. You may recall that the City chose to set aside Portland State University's forecast as inadequate, as it identified a need for only 115 dwelling units over a 20-year period. Instead, we chose to go with our historic growth rate which identified a need for 626 dwelling units over the same period. The State's OHNA methodology is now setting a target of 1,902 dwelling units to be built in the next 20-years, with roughly 600 of those units being subsidized housing. Beth noted that our discussion would have been quite different had we been using these numbers when putting together the City's Housing Production Strategy.

There are a number of reasons for the differences, which we can discuss at the work session. The State is accepting written comments on the interim methodology, and this work session is an opportunity for you to discuss whether or not there is value in providing

comments as a group. You can also provide comments in an individual capacity. Comments can be emailed to HCS.OHNA@hcs.oregon.gov or housing.dlcd@dlcd.oregon.gov until midnight on October 4, 2024, with the subject line: "Public Comment - OHNA Draft Methodology."

Additionally, the Housing Stability Council will review the report in October and the Land Conservation and Development Commission will take public testimony on the draft methodology. Individuals can sign up to testify at the following web pages:

[LCDC Meeting \(September 26-27\)](#)

[Public Comment Sign Up](#)

The State has indicated that the Department of Administrative Services, Oregon Housing and Community Services, and the Department of Land Conservation and Development will consider comments after the public comment period closes. A final round of revisions will then be made to the document between the close of the comment period and January 1, 2025. In addition to the methodology, I have attached a couple of briefs with additional information about the Oregon Housing Needs Analysis and how it will be implemented.

Attachments:

OHNA – HCA Excerpts

Draft OHNA Methodology

DCLD Brief 1 – What is OHNA

DLCD Brief 2 – How will OHNA be Implemented

How much population growth is Newport planning for?

Newport’s population within its urban growth boundary (UGB) is expected to grow by around 1,348 people between 2022 and 2042, at an average annual growth rate of 0.5% This is based on Newport’s historical growth rate over the 2000 to 2021 period.¹

Exhibit 1. Forecast of Population Growth, Newport UGB, 2022 to 2042

Source: ECONorthwest based on US Decennial Census 2000, and Portland State University, Population Research Center 2021.

12,010	13,358	1,348	11% increase
Residents in 2022	Residents in 2042	New Residents 2022 to 2042	0.5% AAGR

How much housing will Newport need?

To accommodate the city’s forecasted population growth of 1,348 people, Newport needs to plan for 626 new dwelling units or about 31 new dwelling units per year over the 20-year planning period.² About 50% of new housing will be single-family detached; 10% will be single-family attached; 15% will be duplexes, triplexes, and quadplexes; and 25% will be multifamily housing (with five or more units per structure).

How much buildable residential land does Newport currently have?

Newport has 863 acres of vacant or partially vacant land which can accommodate over 6,800 dwelling units. When removing land included in the Constructability Analysis (which includes land that the City identified as potentially being difficult to serve with infrastructure), Newport still has 413 acres of vacant or partially vacant unconstrained land which can accommodate nearly 3,800 dwelling units. Newport has sufficient land to accommodate population growth. Chapter 6 estimates Newport’s capacity for new housing based on Newport’s unconstrained buildable acres.

¹ Newport’s official population forecast from the Oregon Population Forecast Program through Portland State University (PSU) projects that Newport will increase by 248 people between 2022 and 2042, at an annual average growth rate of 0.1%. Newport considered this growth for the official analysis of land sufficiency within the Newport UGB, as required by Goal 10, OAR 660-008, and OAR 660-032.

Given that Newport’s growth rate over the past 20 years has been much greater than the current official forecast, it is reasonable to assume that the official forecast may be under projecting the future population. For planning purposes, this report relies on the historical growth rate rather than the official population forecast, which will allow the City to better prepare for an uncertain future. Even when using the historical growth rate to project future population growth, Newport has sufficient land capacity to accommodate growth.

² Newport’s official population forecast from the Oregon Population Forecast Program through Portland State University (PSU) projects that Newport will increase by 248 people between 2022 and 2042. The City would need about 115 new dwelling units to accommodate this growth.

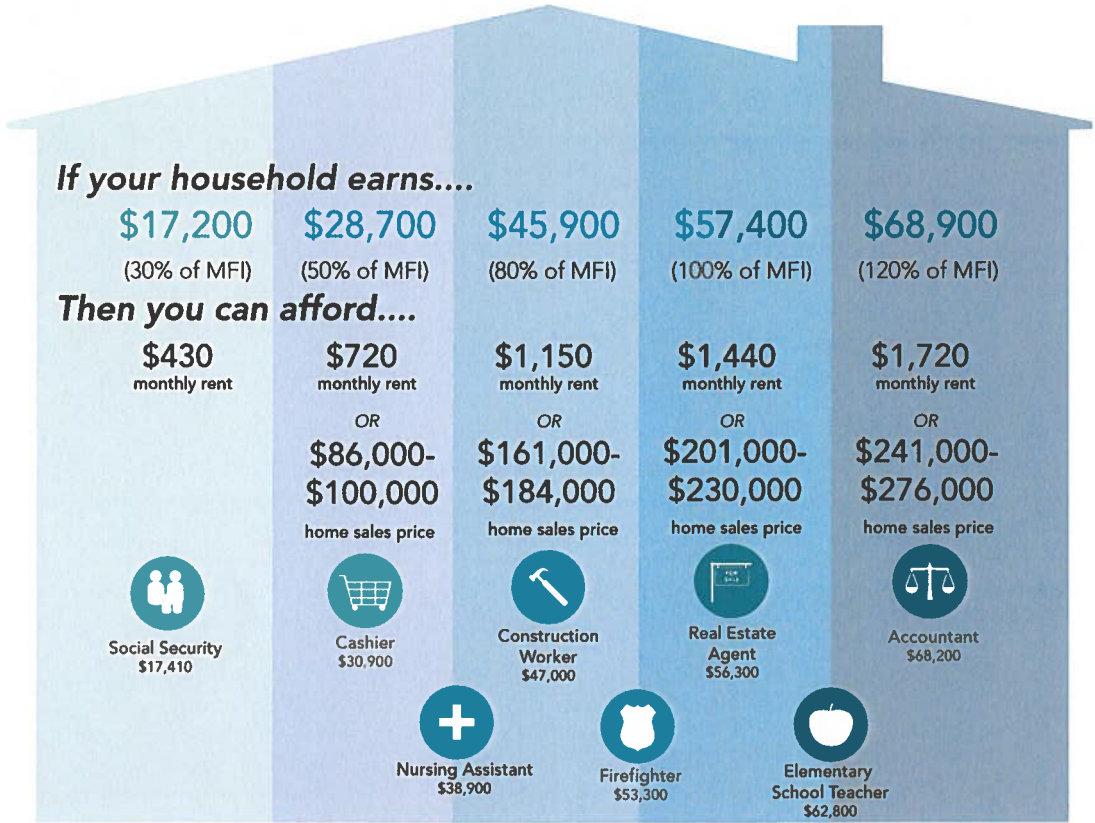
The Median Family Income (MFI) in Lincoln County in 2021 was \$57,400 for a household of four people. MFI is a standard used (and defined) by US Department of Housing and Urban Development on a county-by-county basis. It is used to estimate affordable rental costs for income-restricted housing based on household size. A household earning Lincoln County’s MFI (\$57,400) can afford a monthly rent of about \$1,440 or a home roughly valued between \$201,000 and \$230,000. As Exhibit 84 shows, about 33% of Newport’s households have an income less than \$28,700 (50% or less of MFI) and cannot afford a two-bedroom apartment at Lincoln County’s Fair Market Rent (FMR) of \$1,040.

To afford the average asking rent of \$1,360 (which does not include basic utility costs), a household would need to earn about \$54,400 or 95% of MFI. About 54% of Newport’s households earn less than \$54,000 and cannot afford these rents. In addition, about 16% of Newport’s households have incomes of less than \$17,220 (30% of MFI) and are at risk of becoming homeless.

To afford the median home sales price of \$403,500, a household would need to earn about \$107,000 or 186% of MFI. About 12% of Newport’s households have income sufficient to afford this median home sales price.

Exhibit 83. Financially Attainable Housing, by Median Family Income (MFI) for Lincoln County (\$57,400) 2021

Source: US Department of Housing and Urban Development, Lincoln County, 2021. Oregon Employment Department.



Willamette Valley region		Front-loaded annual target							Total units						
UGB		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units			
Salem UGB		1,903	6,640	6,285	3,433	6,172		9,900	32,430						
Eugene UGB		1,611	5,621	5,282	2,877	5,284		8,299	27,363						
Corvallis UGB		548	1,891	1,805	989	1,831		2,882	9,397						
Albany UGB		474	1,627	1,578	869	1,576		2,546	8,197						
Springfield UGB		462	1,661	1,499	804	1,434		2,247	7,645						
McMinnville UGB		272	948	889	484	897		1,397	4,616						
Newberg UGB		235	790	789	439	811		1,312	4,140						
Keizer UGB		215	754	706	384	690		1,100	3,635						
Woodburn UGB		200	693	660	361	658		1,048	3,419						
Dallas UGB		173	559	587	333	622		1,022	3,123						
Lincoln City UGB		144	258	235	126	1,301		724	2,644						
Polk Outside UGB Area		116	312	402	242	528		829	2,312						
Independence UGB		116	372	397	226	422		698	2,114						
Lebanon UGB		126	450	406	218	397		611	2,081						
Lane Outside UGB Area		100	271	350	210	458		720	2,009						
Florence UGB		112	305	299	166	635		603	2,008						
Newport UGB		111	321	284	151	612		534	1,902						
Monmouth UGB		94	311	320	180	331		544	1,685						
Benton Outside UGB Area		78	272	272	163	272		560	1,563						
Silverton UGB		77	268	251	137	252		395	1,303						
Marion Outside UGB Area		63	170	219	132	287		451	1,259						
Cottage Grove UGB		63	226	205	110	196		310	1,047						
Junction City UGB		58	200	193	106	196		313	1,008						
Yamhill Outside UGB Area		50	134	173	104	227		357	995						
Stayton UGB		58	207	192	104	183		295	982						
Creswell UGB		53	170	179	101	189		311	950						
Philomath UGB		50	166	169	95	179		287	896						
Sweet Home UGB		50	177	162	88	167		252	846						
Millersburg UGB		47	152	159	90	165		274	840						
Veneta UGB		37	122	124	70	132		211	660						
Depoe Bay UGB		31	72	82	48	205		191	597						
Aumsville UGB		32	106	109	61	113		186	576						
Harrisburg UGB		28	90	105	55	100		168	509						
Jefferson UGB		27	95	91	50	89		145	470						
Mt. Angel UGB		26	85	87	48	87		146	454						
Lafayette UGB		27	93	87	47	87		137	451						
Hubbard UGB		26	87	85	47	86		139	444						
Coburg UGB		27	96	87	46	83		129	441						
Sheridan UGB		21	57	73	44	96		150	419						
Linn Outside UGB Area		21	56	72	43	94		148	412						
Lincoln Outside UGB Area		21	56	72	43	94		148	412						



Oregon Housing Needs Analysis Draft Methodology

September 2024

This report is produced by the Office of Economic Analysis within the Department of Administrative Services. The Oregon Department of Housing and Community Services (OHCS) and the Oregon Department of Land Conservation and Development (DLCD) provided key contributions. Specific staff include:

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- Laura Kelly, Regional Representative for Washington County, Metro, and select cities of Columbia County

<http://oregon.gov/DAS/OEA>
<http://oregoneconomicanalysis.com>
http://twitter.com/OR_EconAnalysis

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Common Terms & Acronyms

AMI: Area Median Income: Every year the U.S. Housing and Urban Development (HUD) produces a median family income to determine affordability thresholds for a given area (some geographies are HUD-specific). Affordable housing projects' income limits, rent limits, loans, and other characteristics will be based on this income limit. This term is synonymous with Median Family Income or MFI.¹

Cost Burdening / Severe Cost Burdening: The term "cost burdening" refers to households who pay more than 30% of their income on housing costs. The term "severe cost burdening" is used for households paying more than 50% of their income on housing. These terms come from HUD, and include mortgage payments and interest, or rent, utilities, and insurance.

DAS: Department of Administrative Services

DLCD: Department of Land Conservation and Development

Goal 10 (Housing): One of Oregon's 19 statewide land use planning requirements relating to planning for 20 years of housing need. Cities with populations larger than 10,000 people (as well as all cities and certain urban, unincorporated communities in Tillamook County) must abide by Goal 10 planning requirements.

Goal 14 (Urbanization): One of Oregon's 19 statewide land use planning requirements relating to planning for 20 years of land need inside an urban growth boundary (see term below). Jurisdictions with populations larger than 10,000 people must abide by Goal 14 planning requirements.

HB: House Bill (year)

Housing Affordability: Housing is considered "affordable" to a household if it spends less than 30% of its pre-tax income on housing costs (see Cost Burdening).

HSC: Housing Stability Council: The advisory body overseeing the Oregon Department of Housing and Community Services.

HUD: U.S. Department of Housing and Urban Development

¹ A note on AMI vs MFI from HUD: "HUD estimates Median Family Income (MFI) annually for each metropolitan area and non-metropolitan county. The metropolitan area definitions are the same ones HUD uses for Fair Market Rents (except where statute requires a different configuration). HUD calculates Income Limits as a function of the area's Median Family Income (MFI). The basis for HUD's median family incomes is data from the American Community Survey, table B19113 - MEDIAN FAMILY INCOME IN THE PAST 12 MONTHS. The term Area Median Income is the term used more generally in the industry. If the term Area Median Income (AMI) is used in an unqualified manor, this reference is synonymous with HUD's MFI. However, if the term AMI is qualified in some way - generally percentages of AMI, or AMI adjusted for family size, then this is a reference to HUD's income limits, which are calculated as percentages of median incomes and include adjustments for families of different sizes." Source: HUD. 2018. "FY 2018 Income Limits Frequently Asked Questions." <https://www.huduser.gov/portal/datasets/il/il18/FAQs-18r.pdf>

LCDC: Land Conservation and Development Commission: The governing body overseeing the Oregon Department of Land Conservation and Development.

OEA: Oregon Office of Economic Analysis

OHNA: Oregon Housing Needs Analysis

OHCS: Oregon Housing and Community Services Department

PUMA: Public Use Microdata Area: a geographic area defined by the U.S. Census Bureau to have roughly 100,000 people and to (typically) align with County boundaries. PUMA sizes vary depending on the population density. Oregon has 31 PUMAs, with most PUMAs located in the more densely populated western part of the state.

PUMS: Public Use Microdata Sample: Data files produced by the U.S. Census Bureau that allow users to create custom analyses that are not available through pre-tabulated data tables. These data are produced for PUMA geographies.

Regulated Affordable Housing: Housing that is rent- or income-restricted to be affordable to households earning certain incomes. These units typically have public support (funding) in exchange for affordability requirements. Housing is considered “affordable” to a household if it spends less than 30% of its pre-tax income on housing costs (see Cost Burdening above). Regulations are set according to the types of funding used to develop the housing, such as the Low-Income Housing Tax Credit, or U.S. Housing and Urban Development (HUD) funding. Most regulated affordable housing is affordable for households earning under 60% MFI, but restrictions vary.

UGB: Urban Growth Boundary: Cities in Oregon are surrounded by urban growth boundaries (UGBs) which designate where they expect to grow over a 20-year period.

Background and Policy Context

The Oregon Housing Needs Analysis and its Implementation

The Oregon Housing Needs Analysis (OHNA) is a new component to Oregon’s statewide land use planning system with the intent to facilitate housing production, affordability, and choice to meet housing needs for Oregonians statewide. The OHNA articulates new responsibilities for state agencies and local governments to reorient the implementation of statewide land use planning goals 10 (Housing) and 14 (Urbanization) to produce more housing, ensure equitable access to housing, and ensure state and local governments take action to address need. It affects the way all communities plan for housing and urban lands, and cities with populations of 10,000 or greater are now required to regularly plan and take action to address needs. Under House Bill 2001 and 2889 (2023 Session) The OHNA created the following new components to Oregon’s Housing Planning Program:

Methodology	Dashboard	Program
<ul style="list-style-type: none"> • A methodology that estimates the total number of Needed Housing units over a 20-year period for all of Oregon, divided into geographic regions, components of need, and income levels. • An allocation of need from each region to each local government in a region. • This allocation at the local government level forms the basis for the statewide development of Housing Production Targets for cities with over 10,000 people. • The methodology will be run annually by the Oregon Office of Economic Development inside DAS. 	<ul style="list-style-type: none"> • A publicly available Housing Production Dashboard that will track progress toward housing production target goals by city. • A set of Housing Equity Indicators that will monitor equitable housing outcomes by city. • The dashboard and equity indicators will be published annually by OHCS. 	<ul style="list-style-type: none"> • A Housing Acceleration Program that supports cities who are falling behind on their Housing Production Targets. • The Housing Acceleration Program requires action, partnership, and investment to identify barriers to production within the control of local governments. • The Housing Acceleration Program and OHNA integration into Oregon’s other Land Use Planning Goals will be managed by DLCD and aligned with cities’ Housing Production Strategy Deadlines.

OHNA Implementation

- 1) **The OHNA Methodology** will be finalized by January 1, 2025. See the next section for more information. DAS is responsible for finalizing the methodology with input from OHCS and DLCD.

- 2) **The OHNA Housing Production Dashboard and Housing Equity Indicators** will be published by January 1, 2025. OHCS is responsible for preparing and publishing these items, with input from DAS and DLCD.
- 3) **The OHNA Program** is writing administrative rules through January 1, 2026. To integrate the OHNA into the existing statewide land use planning system, the Land Conservation and Development Commission (LCDC) must adopt new and revised Oregon Administrative Rules surrounding three topics:
 - a) **Housing Needs and Production** rules will be adopted by January 1, 2025.
 - b) **Housing Accountability** rules will be adopted by January 1, 2025.
 - c) **Housing Capacity and Urbanization** rules will be adopted by January 1, 2026.

More information on the [OHNA Implementation Process](#) can be found on [DLCD's Rulemaking Website](#).

This Report: The OHNA Draft Methodology

This report describes the OHNA Draft Methodology and how it has changed from the Pilot Methodology published in 2020.² It describes the steps of the Draft Methodology, including how different components were calculated and the data sources used. It also provides preliminary state and regional results by housing need component and by income level and preliminary local (city) results by income level.

Preliminary results published in this Draft Methodology report **are draft and will continue to change until the methodology is finalized on January 1, 2025**. There are two reasons why the results will continue to change:

1. Publicly available data used to calculate the results will be updated between now and January 1, 2025, which will change the results. See page 38 for a description of public data used, sources, and information on when they are typically updated.
2. The Draft Methodology may continue to change between now and January 1, 2025. The Final Methodology will incorporate public comments on this Draft Methodology and will include several known methodological changes that will not be available until the Final is published.

While the final results will differ from the preliminary results shared herein, the preliminary results demonstrate the outcomes of the OHNA methodology utilizing most current data and provide readers a sense of what the Final Methodology will produce.

Public Input and Finalizing the OHNA Methodology

[The law \(ORS 184.451\)](#) requires DAS to finalize and run the OHNA methodology by January 1, 2025. OHCS and DLCD are making recommendations to DAS on the Final methodology in fall 2024, informed by public input. Figure 1 outlines the process to finalize the OHNA Methodology, including specific opportunities for public comment and testimony.

² This report does not describe changes between the Interim Methodology, which was published in July 2024 and this Draft Methodology.

Figure 1. OHNA Methodology Finalization Process (2024)

- **May 2024: Statewide and Metro-specific webinars hosted by DAS, DLCD, and OHCS (Completed)**
- **July 2024: Publish Interim Methodology Report (Completed)**
- **July-August 2024: Public comment period on Interim Methodology (Completed)**
- **August 2024: Respond to public comments and revise methodology (Completed)**
- **September 2024: Publish Draft Methodology Report (Completed), LCDC meeting and public testimony on Draft Methodology**
- **October 2024: Housing Stability Council Presentation on Draft Methodology Report**
- **October-November 2024: Respond to public comments and revise methodology**
- **December 2024: DAS publishes Final Methodology**

The public can provide feedback on the Draft Methodology through October 4, 2024. The Report will be discussed at the [September 26-27, 2024, LCDC meeting](#) and the public can submit written testimony or sign up to provide virtual or in-person oral testimony. The Report will also be discussed at the October 4, 2024, [OHCS Housing Stability Council Meeting](#).

In addition, written comments can be emailed to HCS.OHNA@hcs.oregon.gov or housing.dlcd@dlcd.oregon.gov through October 4, 2024 with the subject line: "Public Comment - OHNA Draft Methodology."

After October 4, 2024, DAS, OHCS, and DLCD will incorporate comments and publish the Final Methodology by January 1, 2025.

Legislative History

The OHNA has been under development for several years (see Figure 2). Under [2019's House Bill 2003](#), OHCS completed a Pilot Methodology and published a [technical report](#) that describes a recommended methodology and the analytical choices that were ruled out. Many of the data limitations identified and discussed in the Pilot Methodology technical report are relevant in this Draft Methodology and are not revisited herein.

In February 2021, OHCS produced a [companion report](#) that summarizes the Pilot Methodology and provides an overview of the policy choices. And in March 2021, DLCD conducted a review of the pilot methodology and [submitted an evaluation](#) of the methodology along with legislative recommendations.

Under subsequent direction from the Legislature (2021's [House Bill 5006](#)), OHCS and DLCD refined the methodology in 2022 to better account for specific functions and components and provided a [Recommendations Report](#) on how to implement the OHNA into Oregon's existing Land Use Planning System. For a detailed technical explanation of the OHNA methodology and changes recommended last year, see the technical appendix to the OHNA Recommendations Report.

In the 2023 Legislative Session, [House Bills 2001](#) and [2889](#) codified the OHNA into law advancing these recommendations and directing OHCS, DLCD, and DAS to begin implementation.

In summer 2023, DLCDC began rulemaking and implementation which will continue through June 30, 2026, and in early 2024 OHCS and DAS began implementing the OHNA into their programs and systems. The Office of Economic Analysis at DAS will be finalizing the OHNA methodology throughout 2024 so it can be run by January 1, 2025.

Figure 2. OHNA Legislative History

2018	2019	2020	2021	2022	2023
HB4006 Housing production reporting required	HB2001 legalizes middle housing HB2003 requires local housing production strategies Pilot OHNA method	OHCS pilots OHNA methodology and DLCDC completes Housing Production Strategy Rulemaking	HB5006 directs DLCDC to create recommendations to implement the OHNA statewide	HB5202 directs DLCDC to manage Housing Capacity Work Group	HB2001 and 2889 make the OHNA law and direct DAS, DLCDC, and OHCS to implement it into programs

Oregon Housing Needs Analysis Draft Methodology

The OHNA methodology focuses on the affordability and geographic distribution of newly produced housing, not the characteristics of the existing housing stock across the state. This is a methodological choice that has implications for policymaking and tracking the overall affordability of the entire housing stock.

Methodological changes between the Pilot and the Draft Methodologies have been made to improve the OHNA and to better account for different types of demand on current and future housing need. The Draft Methodology adjusts how some components of the Pilot Methodology are calculated and introduces new concepts. The OHNA Draft Methodology has six steps:

1. **Determine Regions**
2. **Determine Income Categories**
3. **Determine Components of Housing Need**
4. **Allocate Needed Housing to Income Categories**
5. **Allocate Needed Housing to Cities and UGBs**
6. **Set Housing Production Targets**

Step 1: Determine Regions

The first step in completing the OHNA is to define the regions for the analysis. The regions affect the entire analysis, from the ability to develop the analysis based on available data to the interpretation of the findings about regional housing needs for individual cities. Since each possible dataset that could be used to define regions has its own level of geographic specificity, choices about regions are integrally tied to choices about data.

Defining regions for this analysis required identifying the source of data that would be used throughout the analysis. The source of data needs to be consistently available statewide, available at an appropriate geographic level, updated annually, have acceptable margins of error for the variables of interest for the methodology, and be flexible enough to allow for comparisons necessary to deliver the analysis required by the statute.

Regions

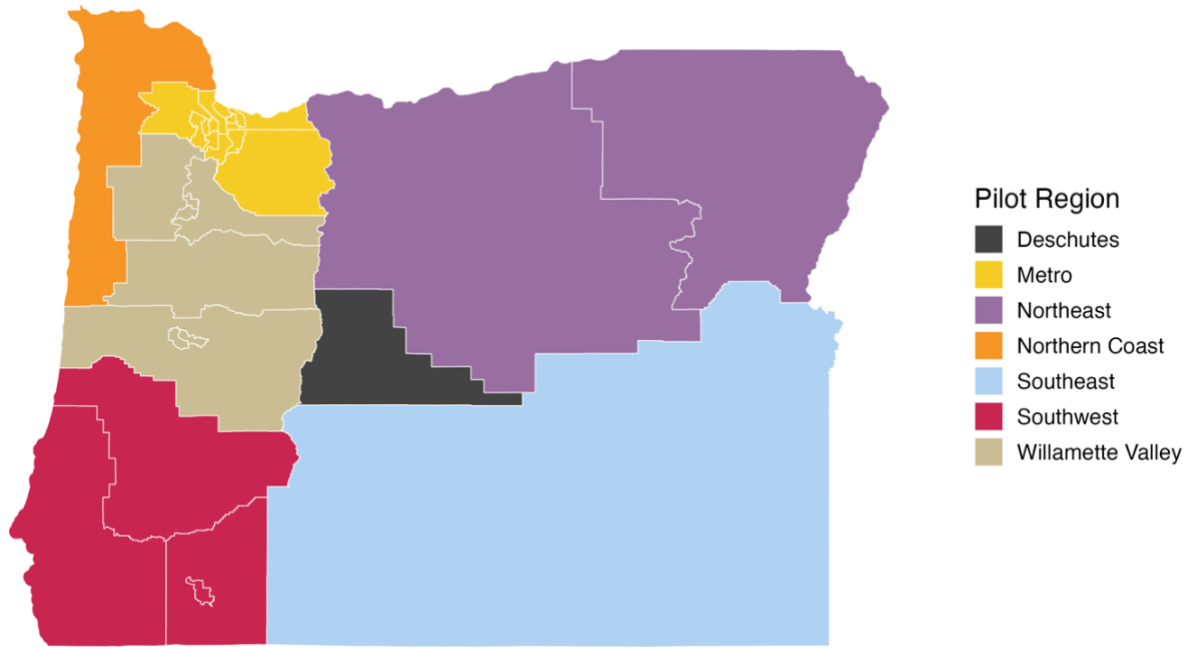
The OHNA regions are built from Census Public Use Microdata Areas (PUMA) regions. This has not changed from the Pilot Methodology, but the regions themselves have changed due to the Census Bureau adjusting the PUMA boundaries.

The 2019 legislation enabling the Pilot Methodology directed OHCS to develop regions based on those used by the Governor's [Regional Solutions Teams](#), unless it was more appropriate to define regions differently based on ease or cost of collection and/or analysis of data. The law also directed OHCS to consider commuting, employment, and housing markets when defining regions. Ultimately the Pilot Methodology used the regions in Figure 3, rather than the Regional Solutions Team's map as (1) the analysis relies on Public Use Microdata Samples (PUMS) data which align with these regions; (2) with

multiple PUMAs in each region, the margin of error on the range of variables used in the analysis is smaller; and (3) discussions with stakeholders suggested that larger geographies are generally preferable to smaller regions.

Figure 3. Pilot Methodology Regions

See Exhibit 11, page 19 in the 2020 OHCS [Technical Report](#)



The Pilot Methodology used PUMAs from 2018. The U.S. Census Bureau updates PUMAs every 10 years following the Decennial Census. The most recent change occurred with the 2022 dataset, following the completion of the 2020 Census. In the OHNA, PUMAs are aggregated up to regions, therefore not all changes in the PUMA geographies impact each region.

In the Draft Methodology, four regions differ from the Pilot Methodology: Central, Northeast, North Coast, and Willamette Valley. The 2022 update of PUMA regions affected how Yamhill and Polk Counties were grouped, which affected the Northern Coast region. The Central region also changed; it is now larger as it contains the entirety of Crook, Deschutes, and Jefferson Counties.

Changes to PUMA boundaries will happen every ten years and may affect the OHNA regions in the future. Figure 4 shows the regions in the Draft Methodology, and Figure 5 shows the changes.

Figure 4. Draft Methodology Regions

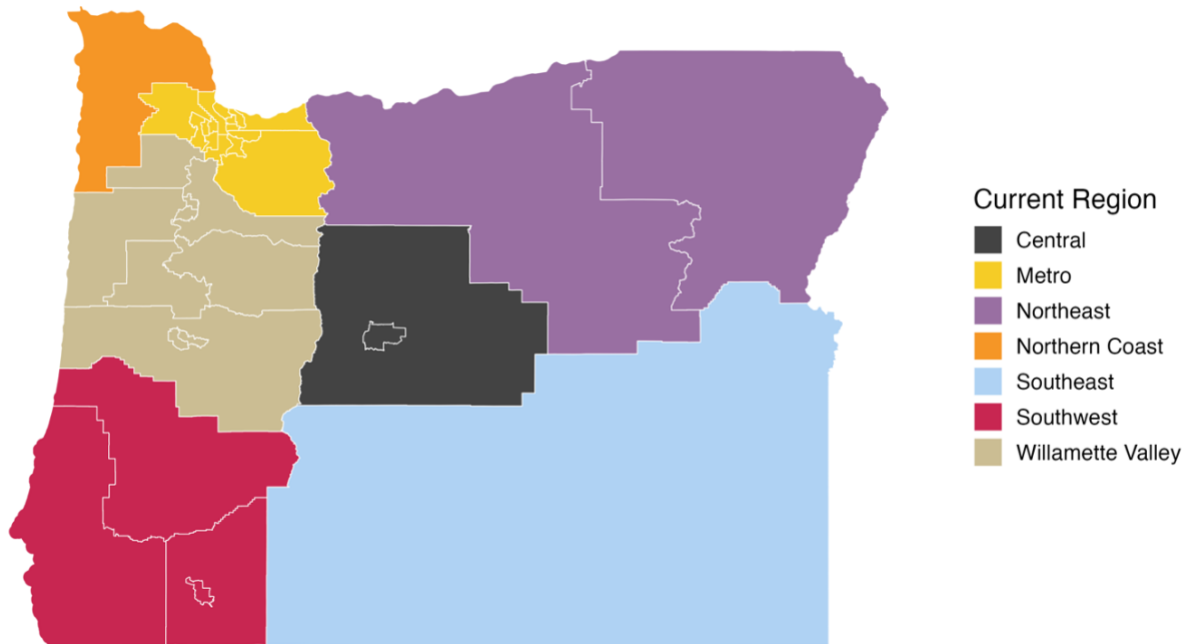
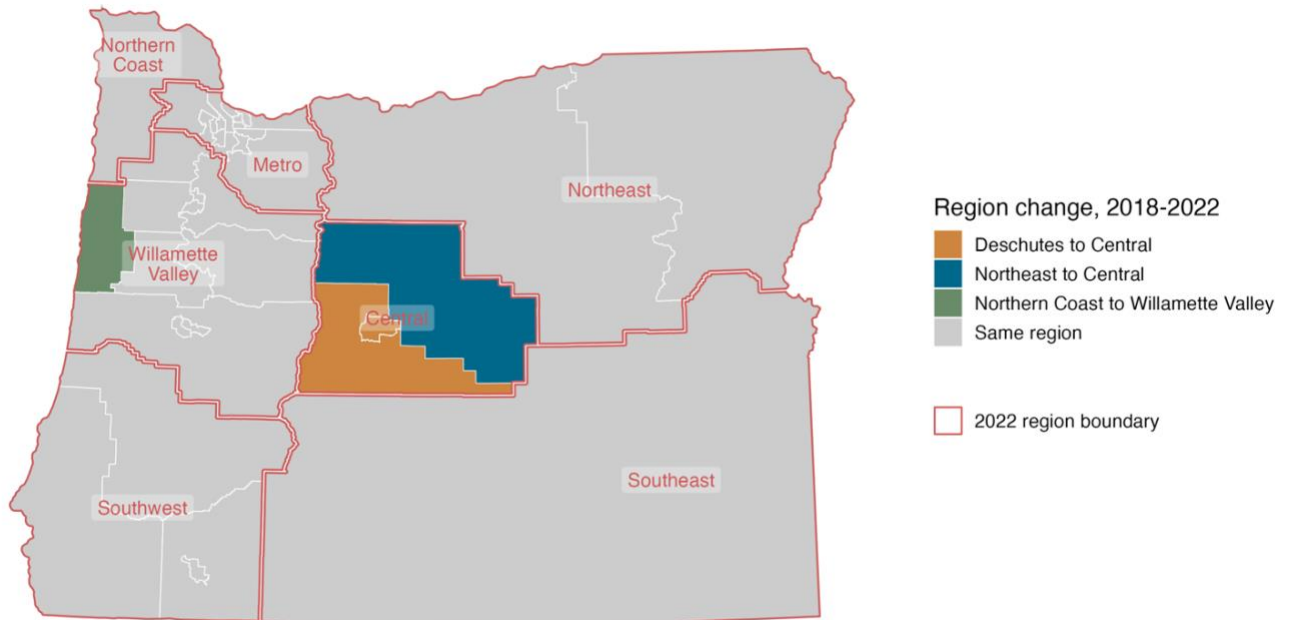


Figure 5. Changes to Regions from Pilot to Draft Methodology



Step 2: Determine Income Categories

The second step in completing the OHNA is to define the income categories that are used to distribute needed housing across the income spectrum. The methodology requires jurisdictions to use regional incomes to allocate housing need. This is an important change from prior Goal 10 planning

requirements in which cities used their own city-level income distributions to allocate housing need by income level.

Income categories translate into housing affordability. Income categories are expressed as a percent of the Area Median Family Income (AMI), which is determined by the U.S. Department of Housing and Urban Development (HUD) and takes into account household size and the number of bedrooms. A housing unit is determined to be affordable to a household if it accounts for less than 30% of that household's gross income.

Across the Draft Methodology, all income categories are adjusted to account for household size. This has not changed from the Pilot Methodology. HUD provides regional AMIs based on a four-person household and provides guidance to allow practitioners to adjust for household size and number of bedrooms in a unit.³ OHCS follows the HUD guidance, which is as follows:

Household Size Income Adjustment

- 1-person household: 70% of AMI
- 2-person household: 80% of AMI
- 3-person household: 90% of AMI
- 4-person household: 100% of AMI
- 5-person household: 108% of AMI

Apartment Unit Size Income Adjustment

- Studio unit: 70% of AMI
- 1-bedroom unit: 75% of AMI
- 2-bedroom unit: 90% of AMI
- 3-bedroom unit: 104% of AMI

Changes from Pilot Methodology

House Bill 2003 (2019) specifically directed the Pilot Methodology to identify housing need in the following income categories:

1. Very low income (<50% of AMI)
2. Low income (50-80% of AMI)
3. Moderate income (80-120% of AMI)
4. High income (120% of AMI or greater)

However, when developing the Pilot Methodology, the project team identified the need for extremely low-income households earning 0-30% of AMI and very low-income households earning 30-50% of AMI. The Pilot Methodology ultimately used the following income levels (see Exhibit 13, page 21 in the 2020 OHCS [Technical Report](#)):

1. 0-30% AMI
2. 31-50% AMI
3. 51-80% AMI

³ Portland Housing Bureau Median Income Percentages 2024. <https://www.portland.gov/phb/documents/2024-income-and-rent-limits-phb/download>

4. 81-120% AMI
5. 120%+ AMI

For the Draft Methodology, OHCS and DLCD recommended changes to the Pilot Methodology to more closely align with OHCS-regulated affordable housing programs, because developers seeking OHCS funding to build regulated affordable housing will be tied to these income limits. These changes adjust the second-lowest income category to a range of 31-60% of AMI, and the middle-income category to 61-80% of AMI. These changes were made in statute, requiring the OHNA to use the following income limits:

- 1) Less than 30%
- 2) 30% or more and less than 60%
- 3) 60% or more and less than 80%
- 4) 80% or more and less than 120%
- 5) 120% or more

Step 3: Determine Components of Need

The third step of the OHNA is to determine the different components of housing need. The OHNA is an estimate of total housing needed statewide over a 20-year horizon and includes housing units that are needed now to house the existing population (Current Need) as well as units needed in the future to accommodate household growth (Future Need).

- **Current Need** includes housing underproduction and housing units for people experiencing homelessness (who are not captured in the Census data on total population).
- **Future Need** includes units for expected population growth, expected housing units that will be lost to second and vacation homes, and units to accommodate expected demographic change.

By including an estimate of current housing need in planning requirements, the OHNA departs from historic Goal 10 planning requirements which only required jurisdictions to look forward at the 20-year population forecast. In designing the OHNA, state leaders recognize that Oregon has been underbuilding housing for several decades and that a narrow focus solely on future population growth will not help communities relieve the pressures created in housing markets by low vacancy rates and high prices.

This section steps through each component of the Draft Methodology and discusses changes from the Pilot Methodology.

Current Need

The OHNA is an estimate of total housing needed statewide over a 20-year planning horizon, including an estimate of how many units the state, regions, and cities need currently to adequately house their existing populations. Current need takes into account housing underproduction and units needed for people experiencing homelessness.

Housing Underproduction

Underproduction was included in the Pilot Methodology and has been adjusted in the Draft Methodology to provide a more nuanced approach to calculating the current need for housing. Underproduction was calculated in the Pilot Methodology using a target ratio of housing units per household. Regions with ratios that were lower than the target were experiencing housing underproduction. The target ratios were set different depending on if the region had above the national percentage of second and vacation homes. So, while it provided some regional variation, it was acknowledged as an overcount, and did not provide more insight into the causes of underproduction in any region.

The Draft Methodology adopts an approach used by Up for Growth, a housing policy research nonprofit in Washington, D.C., that has been vetted by housing industry experts.⁴ This is a more nuanced approach than using a standard target ratio (as the Pilot Methodology did, discussed below) and is considered a national best practice. This new approach calculates the target number of housing units a market should have (demand) and compares that against the actual number of units that market has available for year-round occupancy (supply). These steps are broken down below. Regions where the demand exceeds supply are experiencing housing underproduction.

Figure 6. Up for Growth Housing Underproduction Methodology



Target Number of Housing Units

The estimate of the target number of housing units starts with the Census Bureau’s estimate of total households and then estimates the number of “missing households” that have not formed in a market compared to historical formation rates in 2000.

Household formation is influenced by the housing stock available—when a market does not build sufficient housing, prices rise and vacancy falls, affecting the likelihood of households to form (roommates splitting up, children moving out, etc.). This measure estimates the number of households that are expected to form in less constrained housing market conditions, and as such are a component of current demand.

⁴ Up for Growth, Housing Underproduction in the U.S. 2023. <https://upforgrowth.org/apply-the-vision/2023-housing-underproduction/>

The Draft Methodology calculates “missing households” based on changes in the headship rate (the percentage of people who are heads of households, or householders) for different age cohorts between 18 and 44. The lack of housing availability and affordability is not the only reason that explains reduced household formation rates, therefore including all age cohorts would be an overcount of household formation primarily caused by housing market constraints. Age cohorts are therefore limited to head of households between 18 and 44 as the most likely ages where this occurs—effectively excluding households over 44 is one way to limit the impact of the overcount. Limiting the age cohorts helps compensate for the nature of the overcount—essentially that housing isn’t the only factor contributing to decreased household formation rates.

The Draft Methodology uses a baseline headship rate in the year 2000 for all cohorts. This year was chosen because 2000 Decennial Census data affords us the most recent statistically reliable estimate of a housing market that was more in balance. Headship rates were also generally stable between 1980 and 2000, so going back further would not have a large impact on the baseline headship rate. The Draft Methodology compares the most recent headship rate (based on 2022 PUMS data) against the 2000 baseline for each age cohort. If a cohort has a lower headship rate in the most recent year compared to the baseline, it indicates that fewer households formed. The total estimate of “missing households” is the sum of reduced household formation from cohorts aged 44 years and younger. Should there be negative missing households (more households formed compared to the baseline rate), they are netted out to zero because they are not contributing to excess demand beyond what is already captured in the households formed data observation.

The estimate of missing households is added to the current total number of households to approximate the total number of households that would be seeking housing in unconstrained market conditions. The model then applies a 5% target vacancy rate to estimate the total number of housing units a region should have to accommodate current need and have a healthy level of vacancy. Five percent vacancy is the 75th percentile of the national vacancy rate between 1980 and 2000 and is meant to represent unconstrained market conditions. It is backed by industry stakeholder outreach and research and is used in other methodologies of estimating housing need and underproduction.

Actual Units Available for Year-Round Occupancy

The estimate of the actual number of units available for year-round occupancy starts with the Census Bureau’s estimate of total housing units and removes uninhabitable units and second and vacation homes that are not available for year-round occupancy from the stock. Uninhabitable units are identified in the Census PUMS data as those that lack indoor plumbing and complete kitchens, and that have been vacant for at least a year. Second and vacation homes are identified in the Census Bureau as those that are vacant and used for “seasonal or recreational purposes.”

By removing uninhabitable units and second and vacation homes from the estimate of the current housing stock, the Draft Methodology attempts to calculate each region’s total housing stock available for year-round occupancy as a more accurate reflection of housing supply. When compared to the total number of households each region would have in unconstrained market conditions, the Draft Methodology can capture current housing underproduction and incorporate current housing need into future planning purposes. This change pushes Oregon’s statewide housing planning system toward one that more accurately measures total housing need; planning for future housing need without

accounting for current need will continue to yield insufficient housing production relative to demand across the state.

Changes from Pilot Methodology

The Pilot Methodology estimated underproduction in each region relative to a target ratio of households to housing units. Units lost to second and vacation homes were not estimated as their own component; they were included as part of the target ratio for underproduction. Regions with a lower share of second and vacation homes than the national average (4%) were calculated by excluding second and vacation homes, and benchmarking against a ratio of 1.10 unit per household.⁵ When a region's ratio was less than the target of 1.10 excluding second and vacation homes, it was considered to have housing underproduction. For regions with above the national average of second and vacation homes, a ratio of 1.14 was used as the target to calculate underproduction (see page 19 in the 2020 OHCS [Technical Report](#)).

Housing Units Needed for People Experiencing Homelessness

The Draft Methodology makes a small adjustment to the calculation for this component.

Determining the number of units a region needs to house people experiencing homelessness requires careful attention, because available datasets have many known limitations including undercounting populations. Populations experiencing homelessness are generally not captured in foundational datasets derived from the Census, so they are not included in the projections of current (or future) need. This methodological choice was made under the assumption that if jurisdictions can plan for current need as the sum of underproduction and housing for people experiencing homelessness, while planning for enough housing units to meet future need, then homelessness would become "functionally zero," and would be rare and brief.⁶

The Pilot and Draft Methodologies rely heavily on the limited research available on this topic, as well as discussion and feedback from stakeholders with expertise in research and service provision for those experiencing homelessness in Oregon. The state continues to explore new research and better data to continually improve this portion of the OHNA methodology.⁷

To calculate each region's target number of housing units needed to accommodate households experiencing homelessness, the Draft Methodology uses the Point-In-Time (PIT) Count data of sheltered households and the PIT estimate of the unsheltered population, scaled by a factor of 1.60 to

⁵ 1.10 is the national average ratio of housing units to households formed from 1960 to 2015. The national average share of housing units that are used as second and vacation homes is 0.04. Taking these together creates a ratio of 1.14 that is used as a benchmark for sufficient "cushion" in the market to allow for vacancy, obsolescence, demolition, and second and vacation homes.

⁶ Functional Zero Homelessness occurs "when the number of people experiencing homelessness at any time does not exceed the community's proven record of housing at least that many people in a month."
<https://community.solutions/built-for-zero/functional-zero>

⁷ Recommendations for improving data are included in Chapter 7 of the OHCS RHNA Technical Report and Appendix B describes the key analytical issues in estimating the amount of housing need to accommodate the population of people experiencing homelessness in Oregon.

address known undercounting issues in the data.⁸ The 1.60 scalar for the unsheltered population is at the higher end of other estimates of PIT undercounting.⁹

The model then adds the adjusted PIT count to an estimate of homeless households that are not in the PIT nor Census Data, which is derived from the McKinney-Vento statewide survey of doubled-up students by county. This data on doubled-up students is converted to households by dividing by the average number of children per household by region. The McKinney-Vento data comes from the U.S. Department of Education which works with state coordinators and local liaisons to collect performance data on students experiencing homelessness. The data records the number of school-aged children who live in shelters or hotels/motels and those who are doubled up, unsheltered, or unaccompanied. Sheltered, unsheltered, and accompanied students are assumed to be captured by the PIT counts, and so only doubled up student counts from the McKinney-Vento data are used.

In summary, the methodology looks like this for each OHNA region:

Sum of PIT Count of Sheltered Households for the region

+ Sum of PIT Count of Unsheltered Households * 1.6 scalar for each region

+ Sum of Region's Doubled Up Students / Regional Average Children per Household

= OHNA Estimate of Units Needed to Accommodate Households Experiencing Homelessness

Changes from Pilot Methodology

This step has changed from the Pilot Methodology to correct for an over-adjustment. The Pilot Methodology scaled both the unsheltered and sheltered PIT counts of homelessness by the 1.60 multiplier. Because shelters have a certain number of beds available, the sheltered population experiencing homelessness is not undercounted to the same extent as the unsheltered population. The change to the Draft Methodology improves the accuracy of this component of the OHNA by only scaling the unsheltered population by the 1.60 scalar (see page 20 in the 2020 OHCS [Technical Report](#)).

Future Methodological Changes

OHCS is working with researchers at the Homelessness Research and Action Collaborative (HRAC) at Portland State University (PSU) to improve its understanding of how to more accurately count people experiencing homelessness. The work will revisit best practices in measuring the population of people doubled up and will revisit the scalar applied to people

⁸ Wilder Research, Homelessness in Minnesota - Findings from the 2015 Minnesota Homeless Study (2016). <http://mnhomeless.org/minnesota-homeless-study/reports-and-fact-sheets/2015/2015-homelessness-in-minnesota-11-16.pdf>

⁹ The estimate of a 130% undercount in the PIT is based on: Kim Hopper, Marybeth Shinn, Eugene Laska, Morris Meisner, and Joseph Wanderling, 2008: Estimating Numbers of Unsheltered Homeless People Through Plant-Capture and Postcount Survey Methods. *American Journal of Public Health* 98, 1438-1442, <https://doi.org/10.2105/AJPH.2005.083600>.

experiencing unsheltered homelessness. HRAC conducted a literature review, reached out to other researchers working on similar methodologies, and engaged with Continuums of Care in Oregon to come up with a new proposal for this estimation. This work was completed in September 2024 and the proposal from HRAC including draft numbers is included in Appendix A on page 38. This methodology will be incorporated into the Final Methodology published on January 1, 2025. Appendix A41

Future Need

The OHNA is an estimate of total housing needed statewide over a 20-year planning horizon. Future need takes into account the housing units needed for population growth, housing units lost to second and vacation home demand, and housing units needed to accommodate demographic change.

Housing Units for Population Growth

To estimate 20-year future housing needs, forecasted population growth must be translated into future households and then translated into future needed housing units.

PSU's Population Research Center (PRC) produces the official population estimates for the State of Oregon. The Draft Methodology converts the PRC population forecast to households using the most recent regional average household size estimated with the most recent PUMS data. As with past Goal 10 housing planning requirements, the future population forecast excludes the estimate of people living in group quarters because they are not considered part of the household population, and their needs are planned for separately. Each region's base-year population estimates are reduced by the 2022 PUMS-derived share of population in group quarters, before converting population to households. For the horizon year forecasts, we use 2022 PUMS to calculate a group quarters rate by age cohort and apply it to regions' 2045 age cohort forecasts to arrive at an overall regional group quarters rate. Since most regions' forecast a greater share of older cohorts in 2045, the OHNA currently models slight increases in overall group quarter rates for all regions in the horizon year.

The loss of units to second and vacation homes in the future is calculated as a separate component of need (see next section), therefore the Draft Methodology assumes that each future household will occupy one housing unit, while also planning for the target vacancy rate. Once total future needed housing units are determined, the Draft Methodology applies the same 5% vacancy factor to estimate the future housing stock that cities and regions should plan for (see page 13).

Changes from Pilot Methodology

The Pilot Methodology used the same PRC population forecasts and PUMS estimates of average household size to convert population to households. To translate households into housing units, the Pilot Methodology used the national ratio of housing units per household (1.14), which was intended to account for a vacancy rate, demolition, and future units lost to second and vacation homes. By pulling second and vacation homes into its own component of need, the future need due to population growth

can be modeled more accurately by accounting for the varied rate of second and vacation home growth across the state (see page 19 in the OHCS [Technical Report](#)).

Housing Units Lost to Second and Vacation Home Demand

Estimating second and vacation homes as its own component allows cities to better account for demand for these housing units in the future and improves the State’s understanding of the role that second and vacation homes play in each region’s housing market. In many outdoor recreation- and tourist-heavy communities, particularly along the coast, in the Gorge, and in central Oregon, the presence of second and vacation homes removes units of the existing housing stock from year-round occupants at a different rate than in other parts of the state. This contributes to underproduction of needed housing by reducing the number of units available to full-time renters and owners, thereby decreasing vacancy rates and putting upward pressure on housing costs. As the stock of second and vacation homes grows in the future, it effectively takes away from housing production, as fewer units are available for year-round occupancy.

Figure 7. Summary of Process to Identify Second and Vacation Homes

1. Calculate change in the number of second and vacation homes per region
2. Determine how much housing is needed to offset this expected future loss in units
3. Apply the ratio to forecasted housing unit growth

The current share of second and vacation homes varies by region, as does the pace at which these shares are changing over time. First, the model calculates the change in the number of second and vacation homes for each region between the years 2000 and 2020. The growth in second and vacation homes is then contextualized by the number of all housing units added for each region between 2000 and 2020. The ratio of second and vacation homes added compared to the total housing production is calculated for each region. This ratio is effectively an approximation of how much additional production would be required to offset the loss in units to second and vacation home demand over the 20-year planning period. In practice, a jurisdiction could implement policies to reduce the growth of second and vacation homes or target the production the additional units to offset the loss of units available for year-round occupancy.

Example Calculation for Second and Vacation Home Demand

If a city produced 1,000 housing units between 2000 and 2020 but saw the number of second and vacation homes in the same time period grow from 100 to 200 units (either through new construction or conversion of an existing home), then it would have a ratio of 0.1 $((200-100)/1000)$. If this city was estimated to grow by 2,500 new households over twenty years, the additional production to account for units lost to second and vacation home need would be $0.1 * 2,500$ or 250 units.

Changes from Pilot Methodology

As described, the Pilot Methodology captured housing units used as second and vacation homes in underproduction and population growth when those components used a static household-to-housing-unit ratio. By applying a ratio to the number of households in a region, the Pilot Methodology was attempting to capture the “cushion” of extra housing units that a balanced market would need to properly account for second and vacation home demand and market vacancy.

The Draft Methodology only calculates second and vacation homes as part of determining future housing need. These units are no longer available for year-round occupancy, and as units are purpose-built or converted into second and vacation homes, they need to be replaced in order to achieve the desired number of units per household or target vacancy rate. Units identified as being currently occupied as second and vacation homes are captured as part of the underproduction calculation (current need).

Housing Units for Demographic Change

The number of housing units needed to account for demographic change is a new component of the Draft Methodology and was not captured in the Pilot Methodology. This helps to account for changing household demographic composition (aging and reduced birth rate) as the population of Oregon changes.

Like many states, Oregon is aging, and seniors typically have smaller household sizes; according to Census data, the average household size (persons per household) headed by a person aged 60 to 69 is only 1.9 people, compared to 2.9 people for households headed by a person aged 30-39. As population forecasts expect a larger share of the population to be 65 and older, and as the fertility rate continues to remain below replacement rate, more housing units will be needed to house Oregon’s older total future population. An example below depicts how demographic change is handled in the model.

First, the Draft Methodology uses PUMS data to calculate the current persons per household (PPH) for each major age cohort by region. It then joins the age cohort-based PPH figures to the 2025 and 2045 population forecasts by age cohort, and then calculates a total PPH for each region for 2025 and 2045. Average household sizes for each region are forecast to be smaller due to changing demographics.

The PRC-forecasted populations in each region in 2025 and 2045 are then converted into households by dividing by the average household size in each region. This differs from the population change component, where the PPH is held constant between the baseline and horizon years (using 2025 PPH).

The final step in the process is to convert the added number of households in each region into needed housing units. Following the methodology for the other components, the Draft Methodology also applies the target 5% vacancy factor to the estimated number of needed housing units in the future (see page 13).

Example Regional Demographic Change

1. $(\text{Population}_{2045} \div \text{PPH}_{2025}) - (\text{Population}_{2025} \div \text{PPH}_{2025}) = \text{Households added by Population Change}$
2. $(\text{Population}_{2045} \div \text{PPH}_{2045}) - (\text{Population}_{2025} \div \text{PPH}_{2025}) = \text{Households added by Demographic Change}$
3. $\text{Households added by Demographic Change} \times 1.05 = \text{Housing Units Needed to Account for Demographic Change}$

The demographic change component is effectively capturing the change in household size for existing households (starting in 2025) as well as the marginal new households added between 2025 and 2045. This is a deviation from other components in that it considers housing need for existing and future households. It is included in the future need category because it captures future demand for housing from existing households (rather than underproduction and homelessness, which are current demand).

Step 4: Allocate Needed Housing to Income Categories

Once total housing units needed are estimated for each component and each region, the next step is to distribute housing need to income categories. Allocation processes differ by component.

Current Need: Housing Underproduction

Underproduced units are allocated to income categories based on the rate of cost burdened renter households in each region. Cost burdening is a good proxy to estimate the income levels where current housing is in most need. Underproduction in a market leads to increased cost burdening by limiting choice and reducing overall affordability, and these impacts are most acutely experienced by lower-income renter households who have the highest rates of cost burdening. Underproduced units are therefore distributed proportionate to rates of regional cost burdening to approximate the income levels with the most acute need. For example, if 50% of all renter households who are cost burdened earn 0-30% of AMI, then 50% of the underproduction units should be targeted for households earning 0-30% of AMI. The model uses 2022 PUMS to first isolate cost-burdened renter households in each region, and from there, calculate the proportion of these cost-burdened households in each AMI household income bracket. This has not changed from the Pilot Methodology.

Current Need: Housing Units Needed for People Experiencing Homelessness

Housing units needed for people experiencing homelessness are distributed by income based on information provided from OHCS. This distribution has not changed since the Pilot Methodology. There is no existing, high-quality dataset with information about the incomes of people who are experiencing homelessness, but many households that are experiencing homelessness have incomes and still cannot find a home that is affordable to them.

To provide a starting place for understanding the distribution of households experiencing homelessness by income, the Draft Methodology uses OHCS administrative data from Community

Action Agencies that receive state Emergency Housing Assistance (EHA) and State Housing Assistance Program (SHAP) funds. Statewide, of households whose income is captured in the EHA / SHAP administrative data, a large portion (89%) are in the lowest income categories.

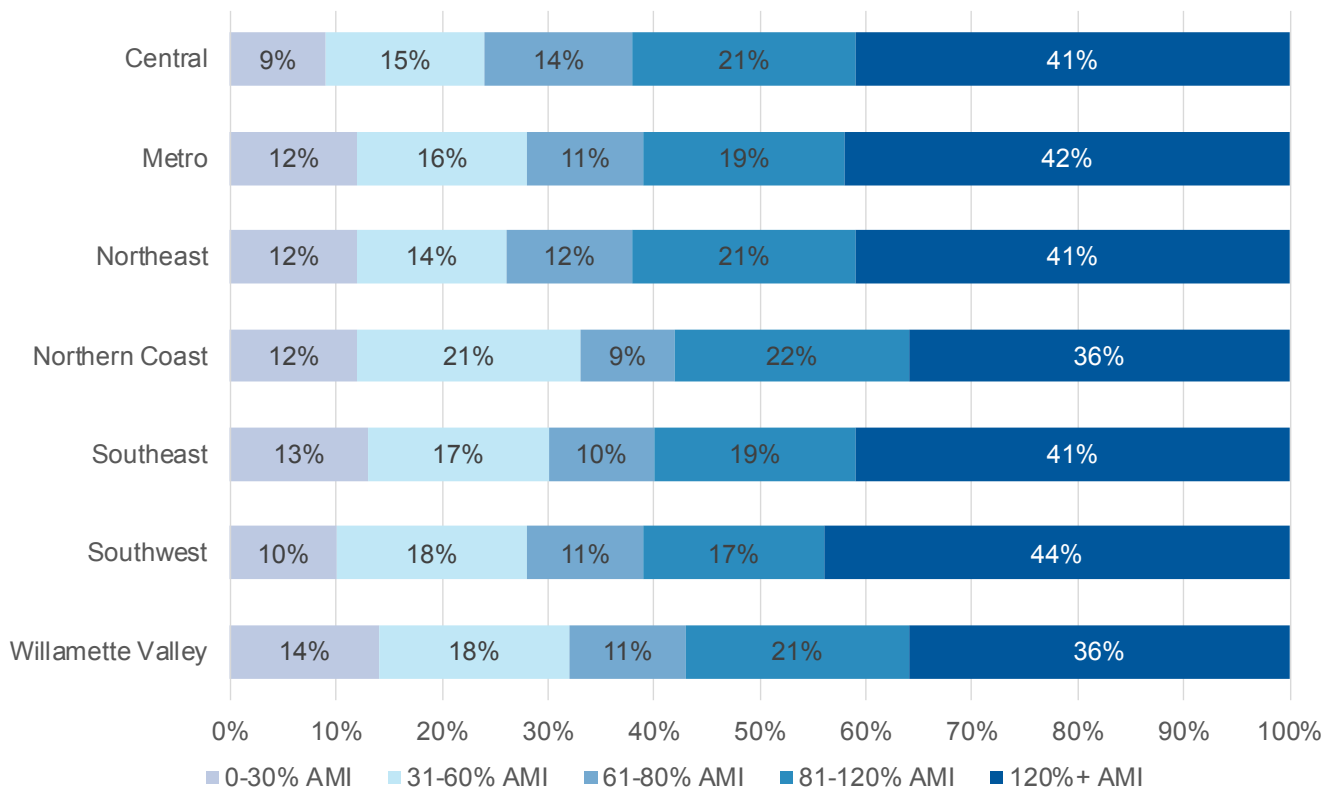
- 3% of units are allocated to the 61-80% AMI Category
- 8% of units are allocated to 31-60% AMI Category
- 89% of needed units are allocated to the 0-30% AMI Category

This does not vary regionally. OHCS began receiving EHA and SHAP data in fiscal year 2020. This distribution is based on the first three quarters of fiscal year 2020 only. OHCS recommends revisiting and refining these data in the future.

Future Need: Housing Units for Population Growth

Units needed to accommodate population growth are allocated based on each region’s current income distribution. The state’s income distribution and that of each region are shown in Figure 8 below. This has not changed from the Pilot Methodology.

Figure 8. Income Distributions for Oregon and Each OHNA Region, 2022



Future Need: Housing Units Lost to Second and Vacation Home Demand

PUMS data does not provide rent or valuation data for units identified as second and vacation homes, but data on the year built are available and are used as a proxy for valuation with the assumption that newer units are more expensive and should be allocated to the highest income categories. The OHNA

methodology allocates units identified as second and vacation homes that were built prior to 1990 to the 80-120% AMI income category while those built after 1990 are allocated to the 120%+ AMI income category. This distribution was determined based on separate analyses of regional patterns of affordability of occupied homes by year built. This is a change from the Pilot Methodology since this component was not calculated individually.

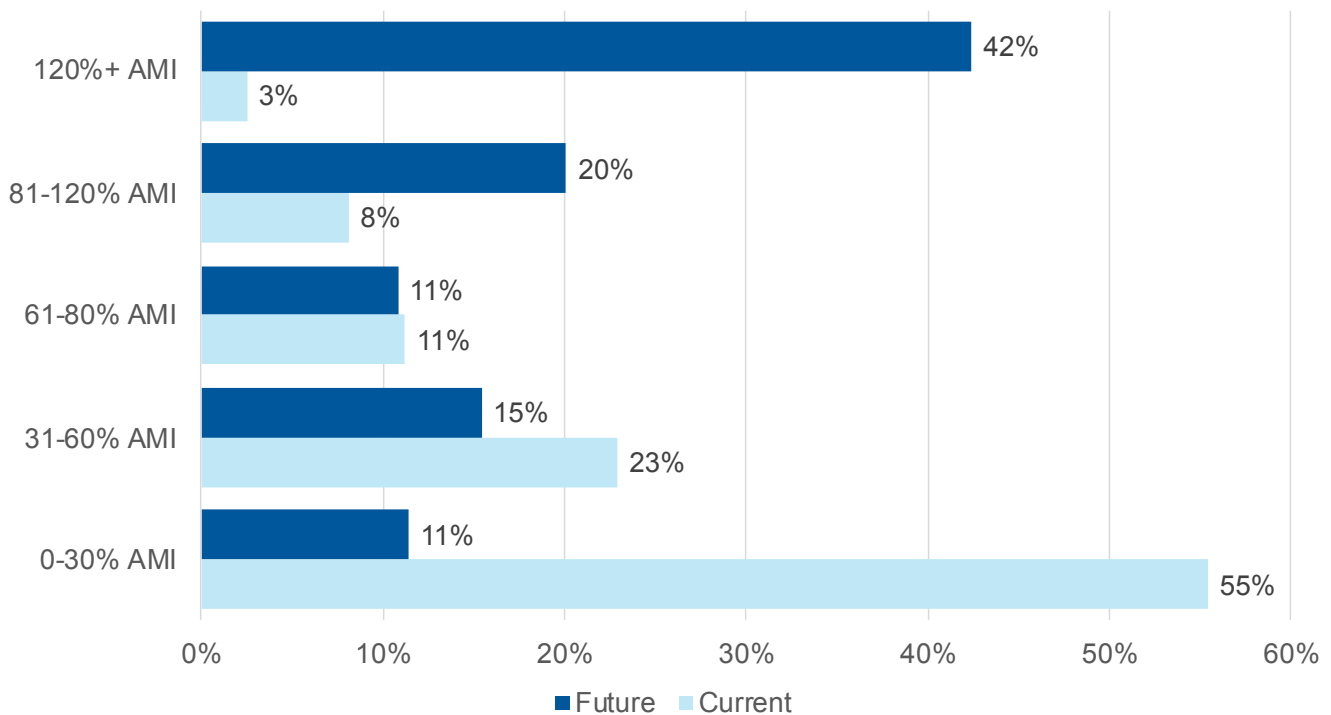
Future Need: Housing Units Needed for Demographic Change

Given the similarities between units needed for population growth and units needed for demographic change, units needed for demographic changes are also allocated to income categories based on each region’s income distribution. This component was not part of the Pilot Methodology.

Summary of Needed Units by Income Level

Generally, the Draft Methodology results suggest that needed housing units in the future are skewed toward higher incomes while current needed housing units are skewed toward lower incomes. Figure 9 below shows an example distribution of housing unit need by income level for current and future need categories.

Figure 9. Example Income Target Distribution by Category of Need for the Metro Region



Step 5: Allocate Needed Housing to Cities and UGBs

After the total housing units needed over 20 years is calculated, the fifth step in the methodology is to determine what needed housing should be allocated to areas inside or outside of Urban Growth Boundaries. The Portland Metro region has a different allocation methodology (see page 27). While the

Salem-Keizer area has two cities within one UGB, the PRC provides city-level population projections for both Salem and Keizer, preventing the need to create a separate allocation process for this UGB.

Step A. Determine Regional Need Inside vs. Outside UGBs

First, the 20-year future population growth outside of UGBs is determined for each region. This is based on PRC forecasts which report outside-UGB subtotals for every county. This step recognizes that not all Oregonians live inside UGBs, and not all Oregonians will live inside UGBs in the future. Lands outside a UGB receive a future housing estimate to reflect projected demand, but do not receive any current need allocations. Current need is primarily a symptom of a lack of enough housing units. Areas outside of UGBs are rural and resource lands and generally do not plan for housing growth under the statewide land use system; therefore, the responsibility for providing additional housing units to meet current need is accommodated inside of UGBs.

Second, units reflecting population growth, demographic change, and demand for second and vacation homes outside UGBs are removed from the regional total. The remaining units are then allocated to UGBs inside the region.

Step B. Allocating Regional Need to Urban Growth Boundaries

Next, each component of need is allocated from the adjusted regional total (excluding areas outside of UGBs) to each of the UGBs in the region using a set of policy variables and weights in the following combinations. These allocation weights attempt to balance where people currently live, where the PSU population forecasts expect people to live, and where the region's jobs are located. Second and vacation home allocations are intended to focus those housing units where the housing markets are most directly impacted today. Including an area's share of jobs as a weight in the allocation is a policy choice driven by Oregon's desire to create compact livable communities with access to jobs and amenities. It also helps to ensure that Oregon will meet its climate and emissions reductions goals.

- Housing Underproduction
 - 50% from UGB's share of its region's current population
 - 50% from UGB's share of its region's current employment (derived from current Census Longitudinal Employer-Household Dynamics (LEHD) block-level counts of jobs within all geographies)
- Housing Units for People Experiencing Homelessness
 - 50% from UGB's share of its region's current population
 - 50% from UGB's share of its region's current employment
- Housing Units for Population Growth:
 - 50% from UGB's share of its region's population growth
 - 50% from UGB's share of its region's current employment
- Housing Units for Demographic Change
 - 50% from UGB's share of its region's current population
 - 50% from UGB's share of its region's current employment
- Housing Units Lost to Second and Vacation Home Demand

- 100% from UGB’s share of its regions current second and vacation home stock (as determined by 2020 Decennial Census block-level counts of second and vacation homes spatially joined to UGB boundaries)

Step C. Distribute from Urban Growth Boundaries to Cities

This is only applicable in the Portland Metro UGB, which contains multiple jurisdictions (see page 27).

Changes from Pilot Methodology

The Draft Methodology differs from the Pilot Methodology with the addition of separating out the demographic change and second and vacation home components and with the allocation processes from the population growth component. The allocation of underproduction and units needed to accommodate homelessness are unchanged from the Pilot.

Step 6: Set Housing Production Targets

Once the total housing need is determined, the sixth step of the OHNA Draft Methodology is to set statewide and regional targets for housing production. In early 2023, Governor Tina Kotek issued [Executive Order 23-04](#) to establish an annual statewide housing production goal. Based on this policy objective and using the same formula as the Governor’s housing production goal, the OHNA Draft Methodology prioritizes and front-loads the current need target over 10 years and spreads the future need target over the 20-year OHNA planning horizon. An example calculation of an annual production target is shown below. The same calculations apply for calculating the production targets at each income level.

Example Annual Production Target Calculation

Total Need: 50,000 units
 Current Need: 10,000 units
 Future Need: 40,000 units

Annual Production Target:

$$\frac{[Current\ Need / 10\ years] + [Future\ Need / 20\ years]}{[10,000\ units / 10\ years] + [40,000\ units / 20\ years]}$$

$$= 1,000\ units + 2,000\ units$$

$$= \mathbf{3,000\ units\ per\ year}$$

Changes from Pilot Methodology

The Pilot Methodology did not contemplate target setting, so this is an addition to the Draft Methodology in alignment with policy direction and legislative intent.

Peer Cities

While not a statutorily designated part of the OHNA *methodology* under DAS, the Housing Production Dashboard that OHCS is producing must include, for each city with a population of 10,000 or greater, “a comparative analysis of progress in comparison to the region and other local governments with similar market types” which are referred to as “peer cities.”¹⁰ The Oregon Administrative Rules that are being written for the OHNA Housing Acceleration Program may also reference a city’s progress toward housing production targets compared to its region or peers.

Peer cities were explored in the [Technical Appendix](#) (pdf page 32) to the [2022 OHNA Legislative Recommendations Report](#) and the idea was carried into the OHNA law. The peer cities analysis was not part of the Pilot Methodology but is included here. To group cities, the OHNA project team identified the following housing market attributes that can indicate similarity:

1. Current population size (static)
2. Share of households with incomes >\$150,000 (static)
3. Share of housing used as second and vacation homes (static)
4. Share of housing that is single unit detached (static)
5. Share of housing that is owner-occupied (static)
6. Population growth 2011-2022 (change)
7. Annualized OHNA allocation as a percent of current housing units (static)

The project team conducted a statistical analysis called a K-Nearest Neighbor (KNN) to group each city with seven other peers based on their shared conditions across the seven variables listed above (see Figure 10 for the draft list of peers). The KNN algorithm uses place-level ACS and Decennial Census population estimates data as inputs, and each input is equally weighted. This approach allows for each city to be compared to its seven closest peers. This approach offers several advantages including a consistent number of peer cities, and for each city to be grouped with its best fitting peers. Other contemplated methodologies result in peer groups of different sizes, for example one group of peers might have 5 cities, while another might have 15.

KNN works by calculating a matrix of Euclidean distances between each pair of cities (the square root of the sum of squared differences for every variable). Some city pairs are socioeconomically and demographically “closer,” or more similar, to each other than others. As Euclidean distance increases, the potential fit as a peer decreases. A common rule of thumb for KNN is to limit neighbor groupings to the square root of the total number of samples in the set. In this case, the draft KNN model contains 55 cities that are over 10,000 population in Oregon, meaning that the choice of 7 nearest neighbors is adequate for the OHNA purposes.

The draft peer city list in Figure 10 does not include urban unincorporated county areas, nor does it include Tillamook County. Data limitations do not allow for a reasonable use case for the unincorporated parts of a county. The best identified comparable approach is to use each of the other counties in a region as the appropriate peers. For example, the peers for unincorporated Multnomah

¹⁰ “City” is used as shorthand for the jurisdictions that will receive peers. See ORS 456.601(3)b: https://www.oregonlegislature.gov/bills_laws/ors/ors456.html

County are the other unincorporated counties in the Metro Region, in this case unincorporated Clackamas and unincorporated Washington County. Final peer groupings will be determined by January 1, 2025, based on updated data and any other methodological updates.

Figure 10. Draft Peer Cities List

City	Peer 1	Peer 2	Peer 3	Peer 4	Peer 5	Peer 6	Peer 7
Albany	McMinnville	Keizer	Hermiston	Newberg	Medford	Silverton	Grants Pass
Ashland	Astoria	Pendleton	North Bend	Newport	The Dalles	Newberg	Milwaukie
Astoria	Ashland	Pendleton	Newport	Roseburg	Monmouth	Newberg	Grants Pass
Baker City	North Bend	Pendleton	The Dalles	Central Point	Coos Bay	Keizer	Molalla
Beaverton	Hillsboro	Eugene	Gresham	Corvallis	Tualatin	Tigard	Wilsonville
Bend	Redmond	Medford	Newberg	Grants Pass	Roseburg	Salem	Lake Oswego
Canby	Gladstone	Oregon City	Central Point	Dallas	Silverton	Keizer	Cornelius
Central Point	Silverton	Oregon City	Keizer	Canby	Cornelius	Dallas	Milwaukie
Coos Bay	Pendleton	La Grande	McMinnville	Springfield	Newport	North Bend	Ashland
Cornelius	Troutdale	Central Point	Gladstone	Sandy	Canby	Sherwood	Oregon City
Corvallis	Beaverton	Eugene	Hillsboro	Monmouth	Gresham	Tualatin	Springfield
Cottage Grove	Woodburn	Lebanon	Central Point	Keizer	Silverton	Troutdale	St. Helens
Dallas	St. Helens	Hermiston	Woodburn	Canby	Central Point	Silverton	Albany
Eugene	Salem	Gresham	Hillsboro	Beaverton	Corvallis	Medford	Springfield
Fairview	Wilsonville	Lebanon	Forest Grove	Hillsboro	Beaverton	Corvallis	Hermiston
Forest Grove	Molalla	Keizer	Oregon City	The Dalles	Silverton	Canby	Tigard
Gladstone	Troutdale	Canby	Milwaukie	Central Point	Cornelius	Silverton	Keizer
Grants Pass	Roseburg	Medford	Newberg	Albany	Prineville	The Dalles	McMinnville
Gresham	Eugene	Beaverton	Springfield	Hillsboro	Keizer	Albany	McMinnville
Happy Valley	Redmond	Sandy	Bend	West Linn	Dallas	Lake Oswego	Sherwood
Hermiston	Dallas	Woodburn	Albany	Lebanon	McMinnville	St. Helens	Canby
Hillsboro	Beaverton	Eugene	Tigard	Tualatin	Gresham	Corvallis	Wilsonville
Keizer	McMinnville	Milwaukie	Albany	Central Point	Oregon City	Silverton	Forest Grove
Klamath Falls	Roseburg	Grants Pass	Monmouth	Prineville	Astoria	Medford	Pendleton
La Grande	Coos Bay	Pendleton	Springfield	Ontario	Milwaukie	McMinnville	North Bend
Lake Oswego	Tigard	Sherwood	Newberg	Oregon City	Tualatin	Milwaukie	West Linn
Lebanon	Hermiston	Cottage Grove	Albany	Fairview	McMinnville	Woodburn	Springfield
McMinnville	Albany	Keizer	Newberg	Silverton	Springfield	The Dalles	Woodburn
Medford	Salem	Grants Pass	Albany	Roseburg	McMinnville	Newberg	Eugene
Milwaukie	Keizer	North Bend	Silverton	Gladstone	Central Point	McMinnville	Oregon City
Molalla	The Dalles	Silverton	Forest Grove	North Bend	Newberg	Central Point	Keizer
Monmouth	Roseburg	Corvallis	Astoria	Klamath Falls	Grants Pass	Ashland	Pendleton

City	Peer 1	Peer 2	Peer 3	Peer 4	Peer 5	Peer 6	Peer 7
Newberg	Silverton	McMinnville	Albany	The Dalles	Grants Pass	Central Point	Tigard
Newport	Astoria	Ashland	Pendleton	Coos Bay	North Bend	Baker City	Newberg
North Bend	The Dalles	Milwaukie	Silverton	Pendleton	Keizer	Central Point	Molalla
Ontario	Hermiston	Springfield	Woodburn	Roseburg	Klamath Falls	McMinnville	Prineville
Oregon City	Central Point	Canby	Keizer	Silverton	Sherwood	Tigard	Milwaukie
Pendleton	North Bend	Coos Bay	McMinnville	Ashland	The Dalles	Springfield	Astoria
Portland	Eugene	Gresham	Hillsboro	Beaverton	Salem	Tigard	Albany
Prineville	Roseburg	Grants Pass	Redmond	Hermiston	Klamath Falls	Newberg	St. Helens
Redmond	Grants Pass	Prineville	Roseburg	Bend	Medford	Newberg	Dallas
Roseburg	Grants Pass	Prineville	Klamath Falls	Medford	Newberg	McMinnville	Albany
St. Helens	Dallas	Woodburn	Hermiston	Central Point	Silverton	Gladstone	Cornelius
Salem	Medford	Eugene	Albany	Hillsboro	Gresham	Grants Pass	Tigard
Sandy	Cornelius	Sherwood	Oregon City	Canby	Central Point	Dallas	Silverton
Sherwood	Oregon City	Cornelius	Central Point	Sandy	Lake Oswego	Canby	Milwaukie
Silverton	The Dalles	Central Point	Newberg	Molalla	North Bend	McMinnville	Milwaukie
Springfield	McMinnville	Albany	Pendleton	Gresham	Keizer	Lebanon	Coos Bay
The Dalles	Molalla	Silverton	North Bend	Newberg	McMinnville	Keizer	Central Point
Tigard	Tualatin	Oregon City	Lake Oswego	Albany	Newberg	Keizer	Canby
Troutdale	Gladstone	Cornelius	Central Point	Milwaukie	Canby	Keizer	Woodburn
Tualatin	Tigard	Beaverton	Hillsboro	Newberg	McMinnville	Albany	Corvallis
West Linn	Sherwood	Lake Oswego	Cornelius	Central Point	Sandy	Oregon City	Newberg
Wilsonville	Fairview	Hillsboro	Forest Grove	Beaverton	Corvallis	Gresham	Tualatin
Woodburn	St. Helens	Dallas	Hermiston	Cottage Grove	McMinnville	Albany	Central Point

Future Methodological Steps

Once the OHNA Methodology is finalized and run each year, DAS expects to smooth the regional totals using 2-3 years of historic data. The intention is to prevent OHNA targets from jumping around significantly from year to year due to data volatility, so local jurisdictions can have consistent information for planning purposes. The smoothing process may be challenging when PUMA boundaries change. The process has not yet been determined. By January 1, 2025, DAS will determine whether the initial housing needs and targets will be based on one or two years of data. By December 31, 2025, DAS will determine whether the subsequent years' housing needs and target will be based on one, two, or three years of data.

In addition, after the OHNA Methodology is finalized and run each year, DAS expects to revisit the methodology over time. A schedule for revisiting the methodology, potential data changes, or potential catalysts that would trigger a methodology update have not yet been determined. The law also allows OHCS and DLCDD to recommend changes to the OHNA Methodology.

Portland Metro Region

The law codifying the OHNA into the statewide land use planning system treats the Portland Metro UGB differently from the rest of the state. Under House Bill 2889 (2023 Session), The Metro Regional Government is required to plan for growth for all the jurisdictions within its UGB, while DAS is responsible for allocating that need to individual cities and urban, unincorporated lands (UULs) within the Metro UGB.

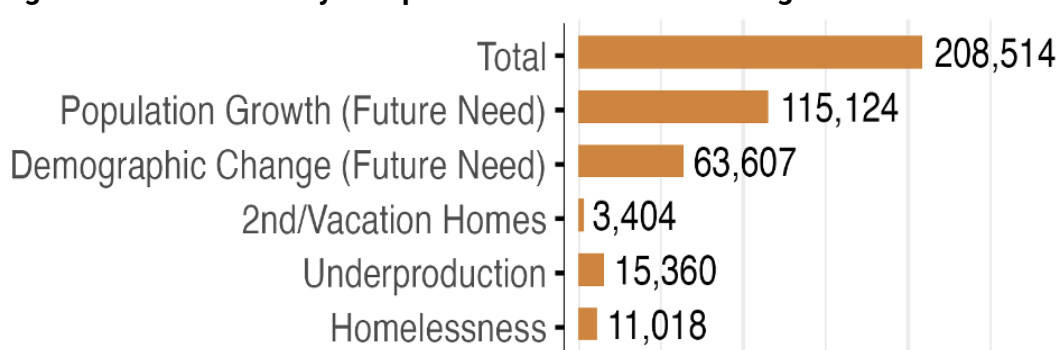
OHNA Draft Metro UGB Suballocation Methodology Steps

Determining Need for Metro UGB

Planning for future need in the Metro UGB is determined separately from the rest of the Metro Region. To begin with, the Metro Region future and current need is calculated in the same manner as all other regions. Current need is determined using the same methodology as all other regions and UGBs. Future growth is then determined for the non-Metro UGBs and the county areas outside of all UGBs. The estimate of future need within the Metro UGB will be obtained from the Metro’s Urban Growth Report (UGR), which will not be finalized until later this year.

To provide the preliminary results in this Draft Methodology report, the Metro Chief Operating Officer (COO) recommended UGR estimate of total future need from household growth (population growth and demographic change combined) for was used.¹¹ This total number is distributed into demographic change and population growth, and across household income brackets using the pre-existing distributions from the rest of the Metro Region as those are not included in the UGR report. The final methodology will utilize Metro adopted UGR as inputs to the allocation methodology.

Figure 11. Distribution by Component of Need for Metro Region



Allocation of Need from UGBs to Cities and Urban Unincorporated Lands

The allocation of future and current need to the non-Metro UGBs within the Metro Region mirrors the methodology used in all other regions. The allocation of units to cities and unincorporated areas within the Metro UGB uses a different allocation methodology that is unique to the Metro UGB. This unique allocation methodology reflects the fact that the Metro UGB functions as a single housing market with

¹¹ See Metro COO/Staff Recommendations to Metro Council. Accessed via: <https://www.oregonmetro.gov/sites/default/files/2024/08/26/2024-UGM-COO-staff-recommendation.pdf>

many different jurisdictions; there is also better data availability for the Metro UGB that allows for more nuanced indicators. Unique elements of the allocation methodology for the Metro UGB include a more refined measure that captures access to jobs and taking existing housing affordability and recent housing production into consideration when allocating existing, unmet housing needs. Each component of the methodology is allocated using the following indicators and weights:

- Units needed for underproduction:
 - **Production:** 50% from the city's rate of housing unit production relative to the UGB-wide average as calculated RLIS's parcel-based Housing Layer, which provides unit counts and year built for parcels. Units built within the last five years of the model run are calculated as a share of total units within each jurisdiction and UUL (**Inverse weight – see below**)
 - **Affordability:** 50% from the percentage of a city's housing units that are rental 0-50% AMI units, relative to the UGB-wide average, using 2020 CHAS 5-year data (**Inverse weight**). Urban unincorporated lands within the UGB have their affordability level calculated using tract-level CHAS data for tracts with at least 30% of their area in the UUL. However, given that as of this run of the model CHAS is relatively out-of-date compared to the ACS/PUMS products, we try to correct for this by applying the affordability rate from CHAS to the much more accurate unit counts calculated with RLIS's Housing Layer.
- Units needed for people experiencing homelessness:
 - **Production:** 50% from the city's rate of housing unit production relative to the UGB-wide average as calculated RLIS's parcel-based Housing Layer, which provides unit counts and year built for parcels. Units built within the last five years of the model run are calculated as a share of total units within each jurisdiction and UUL (**Inverse weight – see below**)
 - **Affordability:** 50% from the percentage of a city's housing units that are rental 0-50% AMI units, relative to the UGB-wide average, using 2020 CHAS 5-year data (**Inverse weight**). Urban unincorporated lands within the UGB have their affordability level calculated using tract-level CHAS data for tracts with at least 30% of their area in the UUL. However, given that as of this run of the model CHAS is relatively out-of-date compared to the ACS/PUMS products, we try to correct for this by applying the affordability rate from CHAS to the much more accurate unit counts calculated with RLIS's Housing Layer.

Future need is allocated to cities (including the unincorporated urbanizable areas for which they have planning authority based on intergovernmental agreements) and UULs using the following indicators and weights:

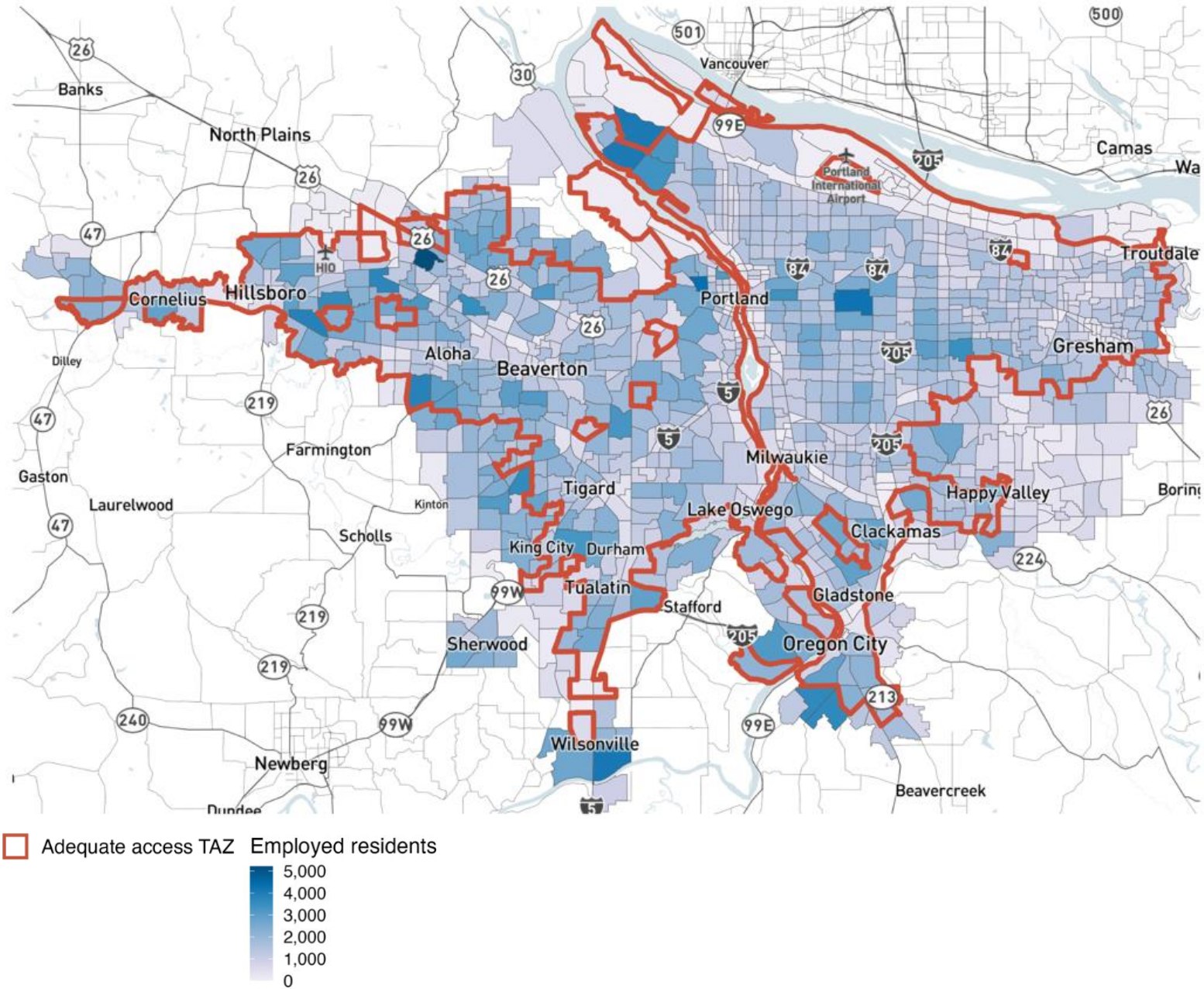
- Units needed to accommodate population growth:
 - **Residential capacity:** 50% from the city's share of jurisdictional residential capacity, as calculated with Metro's UGR process, wherein capacity in Metro's unincorporated urbanizable areas has been assigned to their future responsible jurisdictions.
 - **Jobs access:** 50% from the city's share of UGB employed residents who live within areas with adequate transit or walking access to jobs, as calculated with TriMet and SMART's most recent transit schedule data and OpenStreetMap street grid data (see below)

- Units needed to accommodate demographic change:
 - **Current population:** 50% from the city's share of current (baseline) population, as calculated with 2020 block-level Decennial Census data. The choice to use Decennial Census is driven by the need to allocate population to the complex UUL boundaries as well as cities, which can only be done with granular geographies like census blocks
 - **Jobs access:** 50% from the city's share of UGB employed residents who live within areas with adequate transit or walking access to jobs, as calculated with TriMet and SMART's most recent transit schedule data and OpenStreetMap street grid data (see below)
- Units lost to second and vacation homes:
 - **Second and vacation homes:** 100% from the city's share of all current UGB second and vacation homes as calculated with 2020 Decennial Census place-level counts

Measuring Jobs Access

One of the weights used in allocating units for population growth to Metro cities is a measurement of transit access. The chosen approach uses current TriMet and SMART's schedule data, OpenStreetMap street grid data, and open-source trip-routing software to plot transit and walking trips from every Transit Analysis Zone (TAZ) in the Metro UGB to every other TAZ in the Metro UGB. Walk and transit access was chosen specifically to be most applicable to all households, regardless of income and access to private vehicles as a mode of transportation. Joining this with Longitudinal Employer-Household Dynamics (LEHD) job location data spatially allocated to the TAZs, we can calculate the number of jobs reachable by transit within a 60-minute journey, mid-week (two trips are routed from every TAZ, one at 8:00am and one at 8:00pm, and the weighted average of the two job totals is used). The UGBs' TAZs are rank ordered by job access, and a threshold is set at the 20th percentile to denote "transit access" zones. Each TAZ is assigned to a city based on Metro's TAZ forecast data, and where this information is missing, it is assigned based on which city has the largest overlap with any given TAZ. The number of residents living in these "transit access TAZs" is calculated for each jurisdiction, and the jurisdiction's share of the UGB's total is used as the final weight.

Figure 12. TAZ Transit Access Zones Used to Calculate the Jobs Access Weights



Inverse weighting

Several weights used in the Metro UGB Suballocation Methodology are termed “inverse weights.” These weights are inverted so as to proportionally “credit” cities that have outperformed others in the recent past in terms of affordability and production. The intent behind this system is to ensure that no city becomes less affordable after receiving its allocation. The inverse weighting system works in the following manner, using the “Production” weight as an example:

- Each city’s rate of housing unit production is calculated by taking the previous five years of total permits from HUD/Census Bureau’s permit data (SOCDS) counts and converting them to a percentage of current total units sourced from ACS 2022 5-year place-level estimates.
- The UGB average is calculated from among all cities.
- The “delta,” or nominal units needed for each city to match the UGB’s average rate, is calculated. Cities above the rate receive a weight of 0.
- All the nominal deltas are converted to percent of the total delta. This percentage becomes half the weight used to allocate underproduction and units needed to accommodate homelessness.

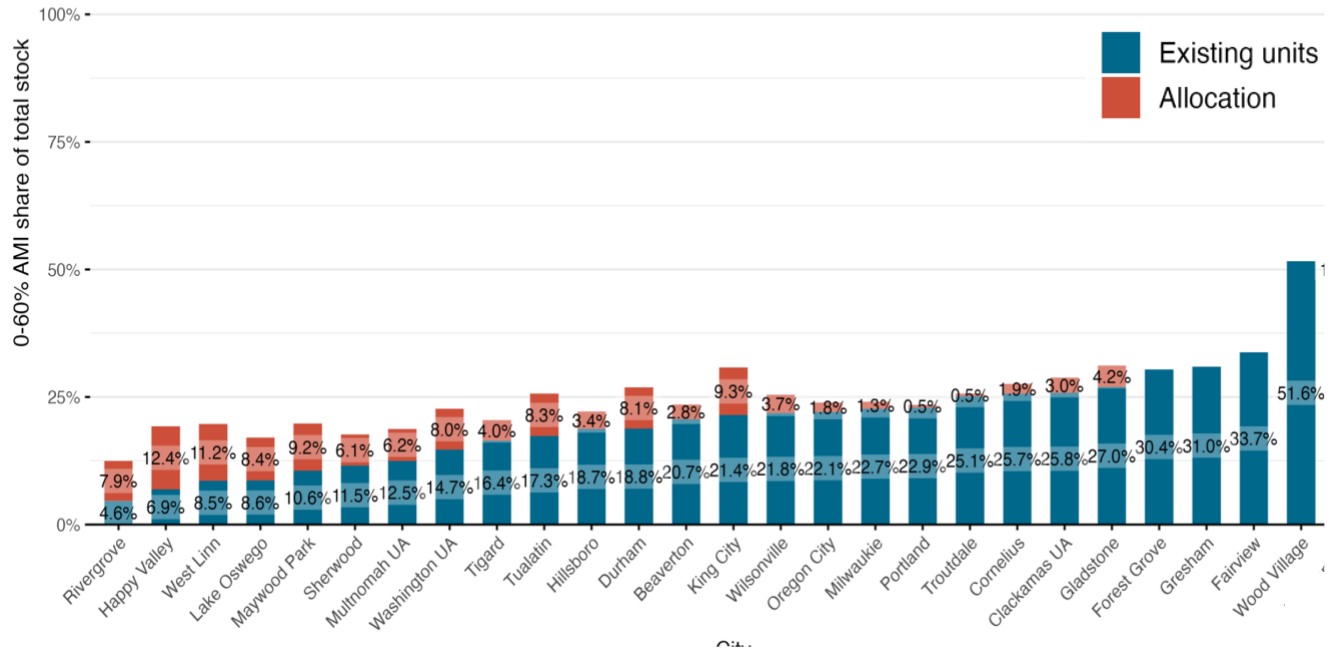
Example Delta Calculation for Inverse Weights

UGB average rate of housing unit production: 7% of current units (average of all cities)

City X	City Y
City X’s current units: 12,000	City Y’s current units: 15,000
City X’s actual production: 600	City Y’s actual production: 1,500
City X’s production rate: 5% of current units	City Y’s production rate: 10% of current units
To match the UGB rate of housing production, City X should have built 840 units ($7\% * 12,000$)	To match the UGB rate of housing production, City Y only needed to build 1,050 units ($7\% * 15,000$)
Its delta is 240 units ($840 - 600$)	Since it produced more than the average, it has no delta, and its weight would be zero.
If the sum of all cities’ deltas was 500, City X would have $240/500$ or 48%. Because recent production is only half of the weight for the current need allocation, this 48% would be averaged with the weight calculated for affordability to arrive at a blended weight.	

Next, each component of housing need is distributed by household income using the same distributions as the Draft Methodology for all other regions. After the weighted suballocation process, the units allocated to each city are totaled up by income category and component, mirroring the allocations given to UGBs outside Metro. In the case of unincorporated lands, the suballocations are totaled up by the governing county into one suballocation total for each of the three counties in the Metro region. The following figure displays the range of current affordability of units affordable at 60% and less of AMI (blue bar) compared to the share that would be affordable at less than 60% if the production target were met.

Figure 13. Distribution of Units Affordable at Less Than 60% AMI by City– Current vs After Target Met



Future Methodological Changes

As noted, Metro’s Urban Growth Report (UGR) will not be finalized until later in 2024. The OHNA Final Methodology will utilize Metro’s adopted growth forecast trend line and capture rate consistent with state statutes.¹²

¹² See [ORS 184.453\(3\)\(e\)](#) which requires DAS to consider Metro’s projected housing needs and [ORS 197A.348\(2\)](#) which requires Metro to project housing need for the components of need that are included in the OHNA.

Draft Methodology Results

This section provides preliminary statewide and regional results of total 20-year housing need by income and need component based on the Draft Methodology. Local city-level results are provided by income level in Appendix B beginning on page 47.

Preliminary Statewide Results

Figure 14. Statewide and Regional 20-Year Total Housing Need by Income Level

Region	Income Level					Total Need
	0-30%	30-60%	60-80%	80-120%	120%+	
Central	6,692	8,262	7,352	12,055	20,680	55,042
Metro	32,486	31,190	20,499	35,035	69,600	188,810
Northeast	3,878	2,836	2,103	4,768	7,031	20,616
Northern Coast	3,731	2,972	1,236	3,436	3,678	15,053
Southeast	2,489	1,994	1,106	2,210	3,737	11,536
Southwest	9,658	10,202	5,823	9,841	21,791	57,314
Willamette Valley	28,090	27,173	14,962	29,966	44,740	144,931
Oregon	87,024	84,629	53,081	97,310	171,258	493,301

Figure 15. Statewide 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	13,456	26,349	-	17,179	30,040	87,024
31-60%	15,747	2,368	-	24,225	42,288	84,629
61-80%	7,255	888	-	16,109	28,828	53,081
81-120%	6,483	-	11,958	28,475	50,395	97,310
120%+	2,664	-	6,130	59,192	103,271	171,258
Oregon	45,606	29,606	18,088	145,180	254,822	493,301

Preliminary Regional Results

Figure 16. Draft Methodology Regions (from page 9)

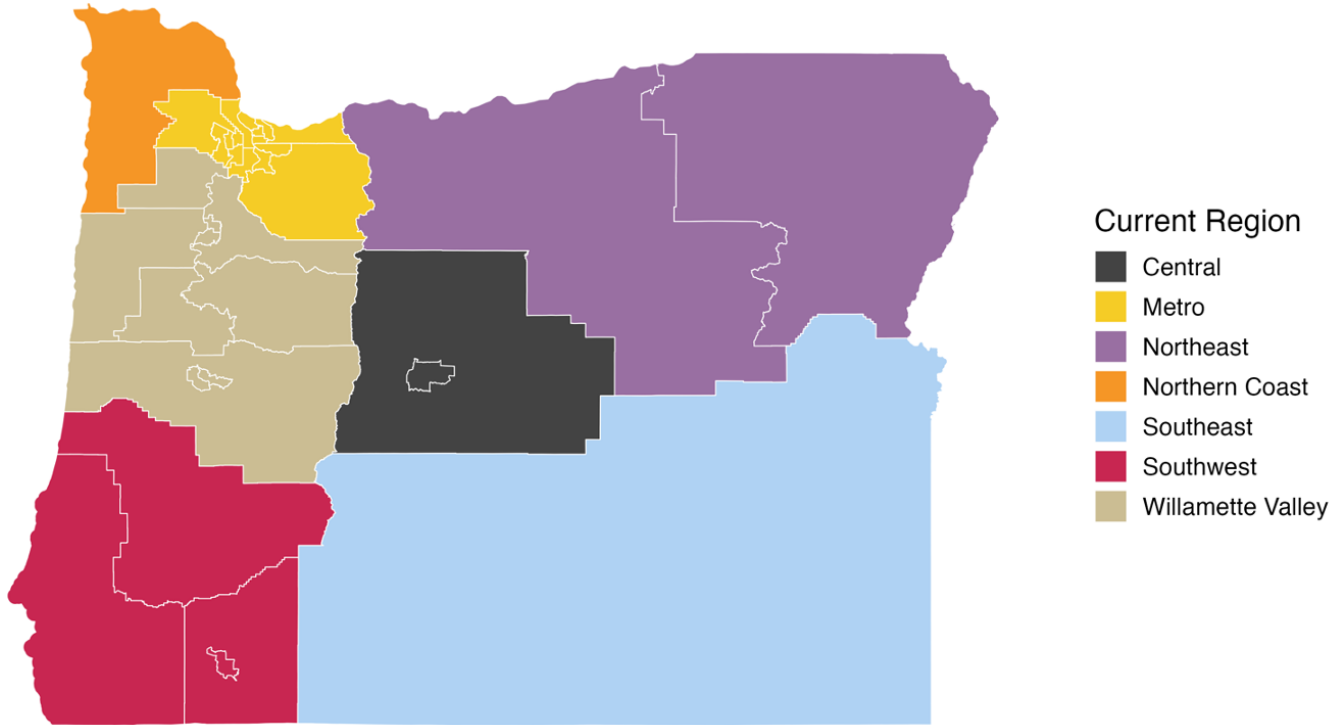


Figure 17. Central Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	707	1,923	-	958	3,104	6,692
31-60%	1,153	173	-	1,635	5,301	8,262
61-80%	921	65	-	1,501	4,866	7,352
81-120%	686	-	1,801	2,256	7,313	12,055
120%+	246	-	1,680	4,421	14,333	20,680
Central	3,713	2,161	3,481	10,771	34,917	55,042

Figure 18. Metro Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	4,274	9,806	-	6,569	11,837	32,486
31-60%	5,391	881	-	8,893	16,025	31,190
61-80%	2,738	331	-	6,221	11,210	20,499
81-120%	2,254	-	2,297	10,879	19,605	35,035
120%+	703	-	1,107	24,193	43,597	69,600
Metro	15,360	11,018	3,404	56,754	102,273	188,810

Figure 19. Northeast Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	859	1,251	-	943	825	3,878
31-60%	669	112	-	1,096	958	2,836
61-80%	299	42	-	940	822	2,103
81-120%	263	-	1,359	1,679	1,468	4,768
120%+	156	-	761	3,262	2,852	7,031
Northeast	2,246	1,406	2,121	7,919	6,925	20,616

Figure 20. Northern Coast Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	1,007	1,757	-	536	431	3,731
31-60%	1,125	158	-	936	753	2,972
61-80%	450	59	-	403	324	1,236
81-120%	357	-	1,284	995	800	3,436
120%+	159	-	636	1,598	1,285	3,678
Northern Coast	3,098	1,974	1,919	4,468	3,593	15,053

Figure 21. Southeast Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	643	815	-	676	354	2,489
31-60%	560	73	-	893	468	1,994
61-80%	253	27	-	542	284	1,106
81-120%	329	-	287	1,045	548	2,210
120%+	176	-	181	2,219	1,162	3,737
Southeast	1,962	916	468	5,375	2,815	11,536

Figure 22. Southwest Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	1,070	4,125	-	1,983	2,481	9,658
31-60%	1,604	371	-	3,654	4,573	10,202
61-80%	671	139	-	2,227	2,786	5,823
81-120%	592	-	1,581	3,406	4,262	9,841
120%+	414	-	616	9,222	11,540	21,791
Southwest	4,350	4,635	2,197	20,491	25,642	57,314

Figure 23. Willamette Valley Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	4,897	6,672	-	5,514	11,008	28,090
31-60%	5,245	600	-	7,119	14,210	27,173
61-80%	1,923	225	-	4,277	8,537	14,962
81-120%	2,002	-	3,349	8,215	16,400	29,966
120%+	812	-	1,149	14,278	28,502	44,740
Willamette Valley	14,877	7,496	4,498	39,402	78,657	144,931

Preliminary Local Results

See Appendix B beginning on page 47.

Data Sources and Updates

The OHNA Draft Methodology relies on publicly available data, which are updated and released throughout the calendar year. Figure 24 below lists the variables used throughout the OHNA Draft Methodology, their sources, and when they are typically updated. The regional results shared in the prior chapter will be updated with the latest data identified in Figure 24 below before the OHNA Methodology is finalized by January 1, 2025.

Figure 24. Publicly Available Data Sources and Release Schedules

Category	Component	Data Input	Source	Area	Annual Release Schedule
Many	Regional Income Limits as a Percent of Area Median	AMI levels to allocate units to incomes	HUD	Region	April
Current Need	Underproduction	Total households	Census PUMS for American Community Service (ACS) 1-year estimates	Region	October
		Missing households			
		Total housing units			
		Second and vacation homes			
		Uninhabitable units			
		Rate of cost burdening (to allocate units to income levels)			
	Units Needed for Homelessness	Point-In-Time count	HUD / OHCS	Region	October
		McKinney-Vento data	Oregon Dept. of Education	Region	Varies
		EHA and SHAP data (to allocate units to income levels)	OHCS	Region	September

Category	Component	Data Input	Source	Area	Annual Release Schedule	
Future Need	Units Needed for Population Growth	Population forecasts	PSU	Region	Rotating 4-year cycle for a set of counties and their UGBs	
		Number of people living in group quarters	Census PUMS	Region	October	
		Average household size				
		Regional income distribution (to allocate units to income levels)				
	Units Lost to Second and Vacation Home Demand	Total housing units	Census PUMS	Region	October	
		Units identified as used for "seasonal or recreational purposes"				
		Year built for units identified as used for "seasonal or recreational purposes" (to allocate units to income levels)				
	Units Needed for Demographic Change		Population forecasts by age cohort, by region	PSU	Region	Rotating 4-year cycle for a set of counties and their UGBs
			Number of people living in group quarters	Census PUMS	Region	October
			Average household size			
Regional income distribution (to allocate units to income levels)						

Category	Component	Data Input	Source	Area	Annual Release Schedule
Allocating Needed Housing	Local Allocation Factor	UGB's current share of regional population	PSU	UGB	Rotating 4-year cycle for a set of counties and their UGBs
		UGB's current share of regional jobs	Census LEHD-LODES	UGB	December
		UGB's current share of regional units identified as used for "seasonal or recreational purposes"	2020 Census	UGB	December
Metro	Metro UGB	Metro's UGR Future Need Totals	Metro	UGB	Variable
	Local allocation factor	City's share of UGB's jobs and residents in transit accessible areas	Census LEHD-LODES	City (Metro only)	Variable
	Local allocation factor	City's share of UGB's jobs and residents in transit accessible areas	TriMet GTFS	City (Metro only)	
	Local allocation factor	City's share of UGB's affordable units	HUD CHAS	City (Metro only)	September
	Local allocation factor	City's share of UGB's recent housing production	HUD SOCDS	City (Metro only)	Monthly
	Local allocation factor	City's share of UGB's future population growth	Metro Distributed Forecast	City (Metro only)	Variable

Notes: All references to Census PUMS are for 1-year ACS data.

PSU forecasts come from the Population Research Center: <https://www.pdx.edu/population-research/population-forecasts>

LEHD-LODES is the Longitudinal Employer Household Data Origin-Destination Employment Statistics: <https://lehd.ces.census.gov/data/>

TriMet GTFS is the General Transit Feed Specification: <https://developer.trimet.org/GTFS.shtml>

HUD CHAS is the Comprehensive Housing Affordability Survey: <https://www.huduser.gov/portal/datasets/cp.html>

HUD SOCDS is the State of the Cities Data Systems which is calculated from Census Data: <https://www.huduser.gov/portal/datasets/socds.html>

Appendix A: PSU Homeless Research & Action Collaborative Recommended Approach for Estimating Counts of Individuals Experiencing Homelessness

Memo begins on next page.

MEMO

TO: Megan Bolton, Oregon Housing & Community Services

FROM: Marisa A. Zapata, PhD, Portland State University
Franklin Spurbeck, Portland State University

DATE: September 10, 2024

SUBJECT: Homeless population and household estimates for OHNA

In 2020, the State of Oregon created its first regional housing needs analysis. As part of this new analytical and geographic approach, the state also included housing needs estimates for people experiencing homelessness. Housing needs assessments typically use US Census data, but the Census is known for not counting people experiencing homelessness well. This memo provides a recommendation on how to estimate the housing needs for people experiencing homelessness based on more relevant data sets. The proposed methodology uses an annualized point in time count of unsheltered households, the number of households served in shelter over a year, and households doubled-up based on K-12 student data and US Census data.

The draft OHNA methodology includes a recommendation about how to estimate the number of housing units needed for people experiencing homelessness. The homelessness estimates used for this approach had several limitations. To create a more robust methodology for estimating the number of housing units needed for people experiencing homelessness, PSU-HRAC reviewed additional literature, assessed various data sets, and met with continua of care for input. In this memo, we present a recommended methodology for the initial creation of OHNA numbers. We created estimates for two geographies to demonstrate how the methodology works. We then document future considerations when conducting OHNAs along with additional research that responds to those considerations.

Recommended Methodology & Data Sets

We recommend combining portions of four data sets to better estimate the number of people experiencing homelessness in an OHNA region.

Our approach uses CoC Point-In-Time Count (PITC) data and McKinney-Vento Student Data (MVSD) for children enrolled in K-12 public schools. We also utilize CoC Longitudinal Systems Analysis (LSA) data, By-Name Lists (BNL), and American Community Survey (ACS) data. Details on each data set follow.

Point-In-Time Count (PITC)

The PITC is a one-night count of people experiencing homelessness. The PITC includes a count of people living unsheltered (PITCu), and people living in shelter and transitional housing (PITCs). The sheltered and transitional housing numbers are submitted every year based on individuals sleeping in shelters that submit data into the CoC's Homeless Management Information System (HMIS). A count of people living unsheltered occurs a minimum of every other year. Some CoCs administer the unsheltered survey each year.

Longitudinal Systems Analysis (LSA)

The LSA is an annual report about the people served by a CoC. It includes the number of people who accessed emergency shelter and transitional housing in a year (LSAs).

By-Name Lists (BNL)

By-name lists are created by CoCs for a variety of purposes. Some are updated frequently and include information about where people are currently living. A BNL that includes people living unsheltered can augment or replace PITCu data (BNLu).

McKinney-Vento Student Data (MVSD)

The MVSD is a count of students enrolled in K-12 schools identified as experiencing homelessness. Unlike HUD, who oversees the PIT and LSA, schools count students who are living doubled-up as homeless. That means the count includes students living unsheltered (MVSDu), sheltered (MVSDs), or doubled-up (MVSDd). The MVSD is the only widely collected primary data set about homelessness that includes doubled-up people.

American Community Survey (ACS)

The ACS is administered by the US Census Department on a continual basis. Collected data is used to create detailed estimates of people and housing information. We use ACS data to estimate the population living doubled-up (ACSdu).

Methodology

Methodology Overview

We recommend the following formula for calculating the number of households that need housing. It combines:

- **Unsheltered data:** PITC unsheltered data that is annualized and converted to household numbers; or, the household count from BNL across one year;
- **Sheltered data:** Households served in shelter as reported per LSAs; and,

- **Doubled-up data:** MVSD for doubled-up student households plus ACS doubled-up households without children enrolled in K-12 schools.

All data are converted to households (HH), and annualized when the data set is not an annual count. We provide an example of the estimated housing need for two geographies here:

Table 1: Example of Estimated Housing Need

Region	Annualized PITCu (2023 or 2024)	LSA (2023)	MVSD (2022-23)	ACSdu (2022)	Total estimate
Metro	4,777	8,200 ¹	2,750	4,301	20,028
Marion-Polk ²	1,157	1,282	955	1,424	4,818

Detailed Methodology

All data were converted into households, and annualized based on a multiplier when an annual data set was not available.

$$\begin{aligned}
 & [(PIT_{unsheltered} * PIT_{uannualizedrate} / PIT_{uhh}) \text{ or } (BNL_{hh})] + LSA_{shelterhh} \\
 & + [(MVSD_{unsheltered} + MVSD_{motel} + MVSD_{doubledup}) / ACS_{hsize}] + (ACS_{doubleduphh} - ACS_{doubledup5-18hh}) \\
 & = \text{Total needed households for people experiencing homelessness}
 \end{aligned}$$

where:

$PIT_{uannualizedrate}$ = an individual-level multiplier determined by how long an individual reports experiencing homelessness in the past year (Shinn et. al. 2024)

ACS_{hsize} = Average number of children per family in a given OHNA region, derived from ACS data (same as draft OHNA methodology)

Unsheltered estimate

The unsheltered estimate can come from two data sources. One starts with the individual-level PIT count unsheltered data and applies an annualization rate derived from Shinn et. al. (2024). The other approach to estimating the number of unsheltered people living in the region is to use a current, deduplicated by-name list for one year. Details about each approach follow.

¹ We were unable to get LSA data from Clackamas or Washington counties. Given that the majority of people experiencing homelessness in the Metro region live in Multnomah county, we expect this to be an underestimate but only slightly. This data comes from a [JOHS dashboard](#).

² Marion-Polk CoC is not an OHNA region. However, we had complete data for the CoC, and included it for that reason.

Annualized PIT Count Unsheltered Data

We recommend beginning with each CoC's PITCu data, still at the individual level. Using a method developed by Shinn et. al. (2024), annualize the unsheltered PIT estimate by weighting each individual by the inverse of how long that person reports experiencing homelessness in the past year. Individuals for whom there is no length of time homeless data can either be weighted at one (representing only themselves), or can have a weight assigned to them based on the distribution of known lengths previously homeless from the rest of the PITCu. For categorical responses, such as "0 to 3 months," we assume the person has been experiencing homelessness for the time at the upper end of the range (in this example, 3 months), which results in a more conservative annualized estimate.

To go from annualized number of people to annual number of households, we multiply the annualized number by the share of unsheltered respondents who were in households, under the assumption that being in a household does not affect one's time spent homeless.

Table 2: Example of Annualized Unsheltered Rate

Client ID	How long have you been homeless this time?	Length homeless (integer)	Inverse (12 months/ integer months)	Weight
00001	0 - 3 months	3 months	12/3	4
00002	24 - 35 months	12 months	12/12	1
00003	No data	12 months	12/12	1

In the above example, we go from a PITCu of three people to an annual estimate of 6 people.

Unsheltered By-Name List

For counties that keep a well-maintained list of people experiencing unsheltered homelessness, we recommend using that list to reflect the number of people experiencing unsheltered homelessness. This number *should* be higher or close to the annualized PIT unsheltered count.

Sheltered estimate

We recommend using either an LSA or pulling an HMIS report of all people who have used housing services for the given year. As much as possible, deduplicate by household; for households with multiple stays, include the more recent stay. Exclude households served in PSH or RRH, who are already in housing units. Exclude households who have exited the homeless services system to permanent housing and have not re-entered homelessness.

Doubled-up estimate

McKinney-Vento Estimate

We recommend using the most recent McKinney-Vento numbers available. Use doubled-up, motel/hotel, and unsheltered student numbers, but do not use the sheltered student numbers. Publicly available McKinney-Vento data is redacted whenever the exact number of students in any instance is less than five. In those instances, replace the redaction with a 1. Once the number of students has been aggregated up to the OHNA region, divide by the average number of school-aged students per household in that OHNA region to move from an estimate of doubled-up students to doubled-up households.

ACS estimate

This estimate is based on a new method developed by Richard et. al. (2022), and uses census data to estimate the number of individuals who are doubled-up in a particular geography. We modified the method to estimate doubled-up households instead of doubled-up individuals. We then used this as the basis for estimating the number of households experiencing doubled-up homelessness. We further modified the Richard et. al. method by excluding from the estimate all doubled-up households that contain a child age 5-18, as we assume households with doubled-up children are accounted for by McKinney-Vento data.

We sum the McKinney-Vento estimate of households experiencing doubled-up homelessness and the ACS estimate of households experiencing doubled-up homelessness to create the overall estimate of doubled-up homelessness in each OHNA region.

Data Notes

We recommend using the most recent and/or valid data regardless of whether the data all come from the same year. The number of people experiencing homelessness can change rapidly based on local contexts. Data sets are also updated at different times. In this report we are using data from 2022 (ACS), 2023 (PITCu, MVSD, LSA), and 2024 (PITCu).

The selected data sets include a mix of one day and annual counts. We identified a method to annualize the PIT unsheltered data. CoCs that manage an updated BNL that includes people living unsheltered and can be deduplicated should use their BNL annual count instead. We classified the ACS as an annual count, even though it is best understood as something in between one day and an annual count.

Not all data sets include household counts. We use the household size calculations from the EcoNW work to calculate household size for the MVSD. EcoNW calculated the average number of school-aged children per household in each OHNA region, then divided the MVSD count by that number, thereby creating an estimate of doubled-up households from the MVSD count of doubled-up students. The ACS household calculation for people living doubled-up involved creating a flag for the head of household for each dwelling unit that contained individuals who

were flagged as being doubled-up. We then used this doubled-up head of household flag as the basis for estimating the number of doubled-up households in the population.

Each data set should be deduplicated within itself. We expect that some deduplication will happen across the data sets depending on the CoC. However, we recognize that there will be duplication. In particular, identifying people who are moving out of shelter and onto the street, or moving off the street onto someone's couch, can be challenging. Despite the likely probability of someone being reflected in multiple data sets, we also know that there are many people experiencing homelessness who are not counted at all.

The methodology and corresponding data should *not* be used beyond the purpose of the OHNA. For instance, some CoCs classify shelter versus unsheltered differently based on the data set. Or, a BNL may include people in shelter as well. The purpose of this methodology is to provide a robust process for estimating the needed housing units for people experiencing homelessness, regardless of their circumstances.

Future areas of improvement

- Duplication between lists. Many people experiencing homelessness move between emergency shelter, unsheltered homelessness, and being doubled-up. Without data that includes personally identifiable information, it will be difficult to de-duplicate across datasets.
- Better usage of BNL lists, such as Built for Zero lists or Coordinated Entry. At this time, there is little consistency across the state on how such by-name lists are created or maintained. However, such lists have the potential to be more accurate than extrapolating from other datasets.
- More finesse in estimating the share of annualized unsheltered count that is in a household.

Reference List

Joint Office of Homeless Services. (2024, August 15). *JOHS System Performance Quarterly Report - FY24 Q4*. Tableau Public. <https://public.tableau.com/app/profile/johs/viz/JOHSSystemPerformanceQuarterlyReport-FY24Q4/Report>

Richard, M. K., Dworkin, J., Rule, K. G., Farooqi, S., Glendening, Z., & Carlson, S. (2022). Quantifying Doubled-Up Homelessness: Presenting a New Measure Using U.S. Census Microdata. *Housing Policy Debate*, 32, 1-22. <https://doi.org/10.1080/10511482.2021.1981976>

Shinn, M., Yu, H., Zoltowski, A. R., & Wu, H. (2024). Learning more from homeless Point-in-Time Counts. *Housing Policy Debate*, 34, 1-10. <https://doi.org/10.1080/10511482.2024.2306607>

Appendix B: Preliminary Local Results

Results begin on next page.

Central region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Bend UGB	1,780	3,962	4,738	4,201	7,074	11,858	31,833
Redmond UGB	526	1,231	1,489	1,321	1,901	3,441	9,384
Deschutes Outside UGB Area	187	309	528	484	865	1,555	3,741
Prineville UGB	161	391	444	391	576	1,005	2,806
Madras UGB	116	278	323	286	410	732	2,030
Crook Outside UGB Area	85	140	240	220	393	706	1,699
Sisters UGB	90	173	227	203	411	656	1,670
La Pine UGB	53	111	140	125	223	370	969
Jefferson Outside UGB Area	26	43	74	68	121	218	525
Culver UGB	14	33	36	32	52	85	239
Metolius UGB	8	20	24	21	29	53	147

Metro region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Portland	2,813	6,258	8,473	5,927	11,845	23,763	56,266
Washington UA	1,772	7,026	4,790	2,864	3,969	7,043	25,692
Hillsboro	724	2,089	2,149	1,434	2,408	5,011	13,090
Beaverton	724	2,091	2,150	1,434	2,402	5,007	13,084
Clackamas UA	751	2,604	2,122	1,340	2,055	4,003	12,124
Gresham	571	1,431	1,751	1,206	2,109	4,548	11,044
Tigard	420	1,178	1,256	843	1,429	3,000	7,706
Happy Valley	350	1,059	1,029	678	1,111	2,292	6,169
Lake Oswego	351	1,313	942	573	920	1,553	5,301
Oregon City	202	539	611	415	713	1,519	3,798
Tualatin	270	1,123	718	419	551	932	3,742
West Linn	248	1,105	631	353	451	633	3,173
Milwaukie	135	338	412	284	503	1,073	2,609
Wilsonville	145	529	393	242	389	678	2,231
Forest Grove	96	221	299	209	376	819	1,925
King City	115	433	313	191	283	509	1,729
Troutdale	77	182	236	164	299	636	1,518
Sherwood	102	395	279	169	238	433	1,514
Cornelius	74	221	219	145	233	492	1,310
Gladstone	86	348	230	136	188	324	1,227
Multnomah UA	66	196	192	127	217	436	1,169
Fairview	48	110	150	105	189	410	963
Wood Village	23	54	73	51	93	200	470
Johnson City	16	58	46	29	42	83	258
Durham	18	77	47	27	35	56	242
Maywood Park	12	44	34	21	30	58	187
Rivergrove	4	17	9	5	11	10	52
Clackamas Outside UGB Area	159	360	488	341	637	1,346	3,173
Canby UGB	121	354	355	235	397	814	2,154
Sandy UGB	82	234	244	163	275	574	1,491
Molalla UGB	62	177	184	123	205	431	1,121
Estacada UGB	39	110	116	78	133	276	713
North Plains UGB	38	99	115	78	133	287	712
Washington Outside UGB Area	33	74	101	70	132	278	655
Banks UGB	9	27	26	17	28	59	159
Gaston UGB	4	6	5	3	5	10	31
Barlow UGB	0	1	1	1	1	2	6
Multnomah Outside UGB Area	-	-	-	-	-	-	-

Northeast region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Hermiston UGB	170	578	430	322	554	984	2,868
Pendleton UGB	124	443	303	218	400	655	2,018
Hood River UGB	112	335	239	176	519	649	1,919
The Dalles UGB	116	421	284	203	362	601	1,870
La Grande UGB	98	357	243	175	300	514	1,590
Hood River Outside UGB Area	68	143	166	142	363	554	1,368
Baker City UGB	71	249	167	119	244	371	1,151
Umatilla UGB	53	188	132	96	170	290	875
Boardman UGB	45	157	113	84	141	251	746
Wasco Outside UGB Area	31	65	75	64	165	251	620
Milton-Freewater UGB	35	128	85	60	104	174	551
Umatilla Outside UGB Area	22	46	53	45	116	177	438
Enterprise UGB	23	78	53	38	83	123	374
Stanfield UGB	16	52	43	33	56	105	288
Sumpter UGB	13	4	3	2	162	96	267
John Day UGB	16	56	37	26	56	82	257
Cascade Locks UGB	11	33	27	21	48	72	200
Morrow Outside UGB Area	8	17	20	17	44	67	165
Heppner UGB	10	33	21	15	42	53	164
Island City UGB	10	35	25	18	31	54	163
Joseph UGB	9	24	16	12	53	53	158
Irrigon UGB	10	35	24	17	28	50	155
Union UGB	9	31	21	15	35	50	152
Weston UGB	9	28	22	16	29	51	146
Elgin UGB	9	34	21	15	30	45	144
Maupin UGB	7	12	9	7	57	46	131
Mosier UGB	6	10	7	6	45	37	105
Athena UGB	6	22	16	11	19	34	103
Pilot Rock UGB	6	21	13	9	26	32	101
Condon UGB	5	13	8	6	35	30	91
Prairie City UGB	5	17	11	8	24	28	88
Wallowa UGB	5	14	9	6	22	23	74
Dufur UGB	4	15	11	8	15	24	72
Arlington UGB	4	9	6	4	25	22	67
Halfway UGB	3	7	8	7	17	26	64
Gilliam Outside UGB Area	4	13	9	7	15	22	64
Canyon City UGB	4	14	9	6	14	19	62
Huntington UGB	4	13	9	7	11	20	61
Moro UGB	3	0	0	0	38	21	60
Granite UGB	3	9	5	4	22	20	60
Echo UGB	3	12	8	6	12	20	58

Northeast region (Continued) UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Fossil UGB	3	10	6	4	17	18	55
North Powder UGB	3	9	7	5	8	15	44
Richland UGB	2	4	2	2	19	14	41
Lostine UGB	2	2	1	1	21	13	39
Seneca UGB	2	4	3	2	16	13	38
Cove UGB	2	8	5	4	6	10	33
Ione UGB	2	6	4	3	8	11	33
Imbler UGB	2	2	1	1	16	11	32
Rufus UGB	2	6	4	3	8	10	31
Ukiah UGB	2	5	4	3	9	10	31
Mt. Vernon UGB	2	7	4	3	5	9	29
Adams UGB	2	5	3	2	8	9	28
Haines UGB	2	3	2	1	12	9	27
Spray UGB	2	5	3	2	7	8	26
Wasco UGB	2	6	4	3	5	9	26
Long Creek UGB	1	3	2	1	10	8	24
Mitchell UGB	1	3	2	1	10	8	24
Lonerock UGB	1	3	2	1	8	7	21
Lexington UGB	1	4	2	2	4	5	17
Grass Valley UGB	1	2	1	1	6	5	16
Dayville UGB	1	3	2	2	3	5	16
Helix UGB	1	4	2	2	3	5	15
Unity UGB	1	0	0	0	7	4	11
Sherman Outside UGB Area	0	1	1	1	3	4	10
Monument UGB	1	2	1	1	2	3	9
Summerville UGB	0	1	1	1	2	4	9
Wheeler Outside UGB Area	1	2	1	1	2	3	9
Antelope UGB	0	0	0	0	4	3	8
Shaniko UGB	0	0	0	0	4	2	7
Baker Outside UGB Area	-	-	-	-	-	-	-
Grant Outside UGB Area	-	-	-	-	-	-	-
Union Outside UGB Area	-	-	-	-	-	-	-
Wallowa Outside UGB Area	-	-	-	-	-	-	-

Northern Coast region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
St. Helens UGB	149	644	465	192	312	419	2,032
Astoria UGB	123	543	372	153	258	319	1,645
Seaside UGB	100	374	271	112	357	331	1,446
Tillamook Outside UGB Area	61	118	206	89	375	429	1,217
Tillamook UGB	89	393	273	113	176	231	1,185
Columbia Outside UGB Area	58	113	198	85	361	412	1,169
Warrenton UGB	84	353	262	108	194	252	1,169
Scappoose UGB	82	343	262	109	184	255	1,154
Clatsop Outside UGB Area	32	62	108	46	197	225	638
Cannon Beach UGB	37	113	79	32	208	145	577
Rockaway Beach UGB	30	63	49	20	238	149	519
Manzanita UGB	21	44	34	14	167	104	363
Gearhart UGB	23	68	47	19	132	90	356
Rainier UGB	24	107	73	30	47	61	318
Clatskanie UGB	20	88	61	25	41	52	266
Vernonia UGB	18	81	56	23	37	48	245
Nehalem UGB	14	51	40	17	51	51	209
Bay City UGB	15	66	44	18	33	37	199
Columbia City UGB	11	50	33	14	20	26	144
Garibaldi UGB	10	40	28	12	31	30	141
Wheeler UGB	4	15	10	4	14	11	54
Prescott UGB	0	2	1	1	1	1	6

Southeast region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Klamath Falls UGB	338	1,256	919	498	917	1,531	5,122
Ontario UGB	145	520	404	223	406	714	2,267
Malheur Outside UGB Area	55	131	173	105	239	452	1,099
Klamath Outside UGB Area	29	70	92	56	127	241	585
Lakeview UGB	30	105	80	44	99	149	477
Nyssa UGB	23	83	62	34	69	111	360
Burns UGB	23	85	60	32	65	101	343
Vale UGB	21	74	59	33	63	108	337
Lake Outside UGB Area	16	37	49	30	68	129	314
Hines UGB	13	46	35	19	44	66	209
Merrill UGB	6	21	15	8	17	26	87
Chiloquin UGB	6	19	13	7	21	26	87
Malin UGB	5	16	11	6	14	20	68
Jordan Valley UGB	3	4	3	2	25	18	52
Bonanza UGB	3	8	6	3	13	14	45
Paisley UGB	2	6	5	3	11	12	37
Adrian UGB	2	5	4	2	7	9	28
Harney Outside UGB Area	1	2	3	2	4	8	18

Southwest region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Medford UGB	1,106	3,219	3,533	2,029	2,997	7,512	19,291
Grants Pass UGB	476	1,397	1,510	865	1,294	3,195	8,262
Roseburg UGB	315	983	977	552	825	1,984	5,321
Ashland UGB	186	549	534	301	623	1,140	3,146
Coos Bay UGB	154	484	457	256	441	925	2,563
Central Point UGB	138	435	433	245	346	873	2,333
Brookings UGB	102	274	268	151	445	624	1,762
Douglas Outside UGB Area	67	123	227	139	256	591	1,336
North Bend UGB	75	241	225	126	200	448	1,239
Jackson Outside UGB Area	58	107	196	120	221	510	1,153
Eagle Point UGB	61	185	191	108	160	393	1,037
Winston UGB	51	155	163	93	134	338	882
Sutherlin UGB	53	172	160	89	134	313	869
Bandon UGB	44	100	104	59	240	276	780
Talent UGB	40	122	123	70	110	255	680
Josephine Outside UGB Area	30	55	101	61	113	261	591
Phoenix UGB	35	112	108	61	89	215	584
Gold Beach UGB	33	76	72	41	191	195	575
Myrtle Creek UGB	34	116	99	54	87	186	543
Coquille UGB	31	100	91	50	87	179	507
Reedsport UGB	26	78	67	37	101	143	426
Rogue River UGB	23	69	69	39	64	143	384
Jacksonville UGB	22	64	60	34	76	129	363
Coos Outside UGB Area	17	31	56	34	63	147	331
Cave Junction UGB	19	58	58	33	51	118	317
Shady Cove UGB	18	49	46	26	81	107	308
Canyonville UGB	16	51	48	27	41	94	261
Myrtle Point UGB	16	55	46	25	38	85	250
Lakeside UGB	14	27	25	14	102	80	248
Port Orford UGB	13	27	23	13	98	74	235
Gold Hill UGB	8	25	22	12	22	44	124
Drain UGB	7	24	21	11	18	39	113
Riddle UGB	6	22	20	11	15	37	104
Oakland UGB	5	18	15	9	12	29	83
Curry Outside UGB Area	4	6	12	7	13	31	70
Yoncalla UGB	4	14	12	6	12	22	68
Glendale UGB	3	13	10	6	8	18	54
Powers UGB	3	10	8	4	12	16	50
Butte Falls UGB	2	7	6	3	8	13	37
Elkton UGB	2	4	4	2	11	10	32

Willamette Valley region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Salem UGB	1,903	6,640	6,285	3,433	6,172	9,900	32,430
Eugene UGB	1,611	5,621	5,282	2,877	5,284	8,299	27,363
Corvallis UGB	548	1,891	1,805	989	1,831	2,882	9,397
Albany UGB	474	1,627	1,578	869	1,576	2,546	8,197
Springfield UGB	462	1,661	1,499	804	1,434	2,247	7,645
McMinnville UGB	272	948	889	484	897	1,397	4,616
Newberg UGB	235	790	789	439	811	1,312	4,140
Keizer UGB	215	754	706	384	690	1,100	3,635
Woodburn UGB	200	693	660	361	658	1,048	3,419
Dallas UGB	173	559	587	333	622	1,022	3,123
Lincoln City UGB	144	258	235	126	1,301	724	2,644
Polk Outside UGB Area	116	312	402	242	528	829	2,312
Independence UGB	116	372	397	226	422	698	2,114
Lebanon UGB	126	450	406	218	397	611	2,081
Lane Outside UGB Area	100	271	350	210	458	720	2,009
Florence UGB	112	305	299	166	635	603	2,008
Newport UGB	111	321	284	151	612	534	1,902
Monmouth UGB	94	311	320	180	331	544	1,685
Benton Outside UGB Area	78	211	272	163	357	560	1,563
Silverton UGB	77	268	251	137	252	395	1,303
Marion Outside UGB Area	63	170	219	132	287	451	1,259
Cottage Grove UGB	63	226	205	110	196	310	1,047
Junction City UGB	58	200	193	106	196	313	1,008
Yamhill Outside UGB Area	50	134	173	104	227	357	995
Stayton UGB	58	207	192	104	183	295	982
Creswell UGB	53	170	179	101	189	311	950
Philomath UGB	50	166	169	95	179	287	896
Sweet Home UGB	50	177	162	88	167	252	846
Millersburg UGB	47	152	159	90	165	274	840
Veneta UGB	37	122	124	70	132	211	660
Depoe Bay UGB	31	72	82	48	205	191	597
Aumsville UGB	32	106	109	61	113	186	576
Harrisburg UGB	31	102	105	59	109	180	555
Jefferson UGB	28	90	96	55	100	168	509
Mt. Angel UGB	27	95	91	50	89	145	470
Lafayette UGB	26	85	87	48	89	146	454
Hubbard UGB	27	93	87	47	87	137	451
Coburg UGB	26	87	85	47	86	139	444
Sheridan UGB	27	96	87	46	83	129	441
Linn Outside UGB Area	21	57	73	44	96	150	419
Lincoln Outside UGB Area	21	56	72	43	94	148	412

Willamette Valley region (Continued) UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Yachats UGB	19	26	25	14	191	97	352
Turner UGB	20	65	66	37	70	112	350
Donald UGB	19	60	64	36	67	112	338
Oakridge UGB	20	65	61	33	73	101	334
Waldport UGB	18	44	41	22	120	91	317
Toledo UGB	19	67	57	30	64	84	303
Mill City UGB	17	57	55	30	61	91	294
Gervais UGB	16	55	53	29	52	86	276
Willamina UGB	15	50	51	28	52	85	266
Carlton UGB	15	50	49	27	56	83	266
Dundee UGB	15	53	48	26	52	75	255
Adair Village UGB	13	41	43	25	46	76	230
Tangent UGB	14	48	45	24	43	68	228
Sublimity UGB	14	51	44	23	40	63	222
Aurora UGB	12	37	40	23	42	70	211
Detroit UGB	10	5	5	3	135	53	201
Brownsville UGB	11	38	37	21	38	61	196
Dayton UGB	11	42	37	20	34	55	188
Amity UGB	10	35	33	18	32	53	172
Dunes City UGB	9	19	18	10	76	48	170
Lyons UGB	10	32	30	17	37	51	166
Scio UGB	8	28	28	15	28	46	146
Lowell UGB	8	25	25	14	31	43	137
Siletz UGB	7	26	24	13	25	38	125
Halsey UGB	7	23	23	13	23	37	118
Falls City UGB	7	21	22	13	23	38	117
Monroe UGB	7	22	22	12	23	38	117
Yamhill UGB	7	23	21	12	20	32	109
St. Paul UGB	5	15	16	9	17	29	86
Scotts Mills UGB	3	9	10	5	11	17	52
Sodaville UGB	3	9	9	5	9	16	49
Idanha UGB	2	7	7	4	13	14	45
Westfir UGB	2	5	5	3	7	9	28
Gaston UGB	4	6	5	3	5	8	28
Gates UGB	2	5	4	2	7	7	25
Waterloo UGB	1	3	3	1	2	4	13

WHAT IS THE Oregon Housing Needs Analysis (OHNA)?



The OHNA has been codified into law¹ with the intent to facilitate housing production, affordability, and choice to meet housing needs for Oregonians statewide.

The OHNA represents the most significant revision to the state's housing planning system since its inception 50 years ago. The entire state is experiencing a housing crisis. Prior to the OHNA, Oregon's housing planning system planned for and invested in too little housing resulting in undersupply, rising home prices, segregation and displacement in some communities, and deepening inequities across all communities.

The Oregon Legislature and Governor Tina Kotek have directed the Department of Land Conservation and Development (DLCD) to iterate housing planning in the state to **ensure that all Oregonians have access to safe, affordable housing in their communities of choice that meets their needs.**

What is the OHNA?

The OHNA articulates new responsibilities for state agencies and local governments to reorient the implementation of Statewide Land Use Planning Goals 10 (Housing) and 14 (Urbanization) to produce more housing, ensure equitable access to housing, and ensure state and local governments take action to address need. It affects the way all communities plan for housing and urban lands, and cities with populations of 10,000 or greater are now required to regularly plan and take action to address needs. The OHNA includes the following components:

Methodology

- ◆ A methodology that estimates the total number of **Needed Housing** units over a 20-year period for all of Oregon, divided into geographic regions, components of need, and affordability brackets
- ◆ An allocation of need to each local government in a region
- ◆ This allocation at the city level forms the basis for the statewide development of **Housing Production Targets** for cities with over 10,000 people
- ◆ The methodology will be run annually by the Oregon Office of Economic Analysis inside the Department of Administrative Services (DAS)

Dashboard

- ◆ A publicly available **Housing Production Dashboard** that will track progress toward housing production target goals by city
- ◆ A set of **Housing Equity Indicators** that will monitor equitable housing outcomes by city
- ◆ The dashboard and equity indicators will be published annually by the Oregon Housing and Community Services (OHCS) Department

Program

- ◆ A **Housing Acceleration Program** that supports cities who are falling behind on their Housing Production Targets
- ◆ The Housing Acceleration Program requires action, partnership, and investment to identify and address barriers to production within the control of local governments and state agencies
- ◆ The Housing Acceleration Program and OHNA integration into Oregon's other land use planning goals will be managed by DLCD and aligned with cities' Housing Production Strategy deadlines

How was the OHNA Methodology Developed?



The OHNA has been under development for several years. In 2019, House Bill 2003 directed OHCS to study a [pilot methodology](#), which was completed in 2020. Under subsequent direction from the legislature, OHCS and DLCD refined the methodology in 2022 to better account for specific functions and components. For a detailed technical explanation of the OHNA methodology and changes recommended last year, see the [technical appendix](#) to the [OHNA Recommendations Report](#). The Office of Economic Analysis at DAS will be finalizing the OHNA methodology throughout 2024 so it can be run on January 1, 2025.

Want to Get Involved and Stay Informed about the OHNA?

The OHNA is a brand new set of laws that affect housing provision for Oregonians. Many of the decisions and ideas described in this document will be finalized over the 2024-2025 time period. DLCD recruited and began meeting with its Advisory Committees in Fall 2023, but there are many ways to get involved and stay informed about the process.

Visit [DLCD's housing rulemaking webpage](#) for additional policy briefs describing:

- How the OHNA will be implemented
- How the OHNA will change Statewide Land Use Planning Goals 10 and 14
- How to define Needed Housing in the OHNA

To Get Involved and Stay Informed About the OHNA:

- See [DLCD's housing rulemaking webpage](#)
- Sign up for process updates at DLCD's housing rulemaking [GovDelivery](#)
- Reach out to DLCD's Housing Division with questions and comments at housing.dlcd@dlcd.oregon.gov.

1. See House Bills [2001](#) & [2889](#) (2023 Session). Codified in [Oregon Laws 2023, chapter 13](#) and Oregon Revised Statute (ORS) chapters 195, 197, 197A, and 456

HOW WILL THE Oregon Housing Needs Analysis be Implemented?



The OHNA has been codified into law¹ with the intent to facilitate housing production, affordability, and choice to meet housing needs for Oregonians statewide.

The Department of Land Conservation and Development (DLCD) is leading a rulemaking process for the OHNA through 2025 in partnership with the Oregon Housing and Community Services Department (OHCS) and the Oregon Department of Administrative Services (DAS). The implementation process will clarify and define how the OHNA will operate, and the rules will refine how communities plan for housing needs and urban lands.

What is the Rulemaking Process?

Oregon Revised Statutes (ORSs) are the governing laws in Oregon. The Legislature has the authority to adopt, amend, or repeal state laws. Oregon Administrative Rules (OARs) are the directives, regulations, and standards that agencies develop to implement or interpret the laws. The process of developing or modifying these directives, regulations, and standards, is called “rulemaking.”

The OHNA changes how Statewide Land Use Planning Goal 10: Housing, and Goal 14: Urbanization are implemented (described in a separate policy brief), so DLCD must facilitate a public rulemaking process to integrate the OHNA into the OARs overseeing the Statewide Land Use Planning system. DLCD staff will write the rules under guidance from several advisory committees, and the Land Conservation and Development Commission (LCDC) will adopt them.

The rulemaking process is split into three major topics:

Housing Needs and Production

- ◆ Incorporating the OHNA into local housing planning (rules must be adopted January 1, 2025)

Housing Accountability

- ◆ Addressing barriers to make progress towards outcomes (rules must be adopted January 1, 2025)

Housing Capacity and Urbanization

- ◆ Facilitating development-ready land to support production (rules must be adopted January 1, 2026)

The Oregon Legislature has directed DLCD to:

Housing Production Rulemaking Priorities

Use the following principles for rulemaking and implementation:

- ◆ Housing that is safe, accessible and affordable in the community of their choice should be available to every Oregonian.
- ◆ Building enough equitable housing must be a top priority.
- ◆ The development and implementation of the housing production strategy should be the focal point by which DLCD collaborates with local governments to address barriers to housing production.
- ◆ Tools and resources to address housing production should be provided to local governments, but not to the exclusion of enforcement authority.
- ◆ Housing production should support fair and equitable housing outcomes, environmental justice, climate resilience and access to opportunity.
- ◆ Housing production should not be undermined by litigation, uncertainty or repetitive or unnecessary procedures.
- ◆ Local governments, to the greatest extent possible, should take actions within their control to facilitate the production of housing to meet housing production targets.

Urbanization Rulemaking Priorities

Adopt rules that prioritize:

- ◆ Facilitating and encouraging housing production, affordability and choice within an urban growth boundary.
- ◆ Providing greater clarity and certainty in housing and urbanization processes to accommodate an identified housing need.
- ◆ Reducing the analytical burden and increasing legal certainty for local governments to meet their identified housing need by adjusting an urban growth boundary when necessary while still protecting resource lands.
- ◆ Supporting coordinated public facilities planning, annexation, and comprehensive planning to facilitate housing production on lands brought into an urban growth boundary.

Want to Get Involved and Stay Informed about the OHNA?

The OHNA is a brand new set of laws that affect housing provision for Oregonians. Many of the decisions and ideas described in this document will be finalized over the 2024-2025 time period. DLCD recruited and began meeting with its Advisory Committees in Fall 2023, but there are many ways to get involved and stay informed about the process.

Visit [DLCD's housing rulemaking webpage](#) for additional policy briefs describing:

- How the OHNA will be implemented;
- How the OHNA will change Statewide Land Use Planning Goals 10 and 14;
- How to define Needed Housing in the OHNA

To Get Involved and Stay Informed About the OHNA:

- See [DLCD's housing rulemaking webpage](#); Sign up for process updates at DLCD's housing rulemaking [GovDelivery](#); Reach out to DLCD's Housing Division with questions and comments at housing.dlcd@dlcd.oregon.gov.

Who is Involved in the Rulemaking Process?

DLCD

- ◆ Work with the RAC and TACs to draft and refine rules.
- ◆ Oversee the consultant team and deliverables
- ◆ Ensure the DLCD Racial Equity Framework is embedded into the rulemaking process
- ◆ Conduct wider community engagement
- ◆ Update LCDC on rulemaking progress at each commission meeting throughout the process, and incorporate feedback into the draft rules.

LCDC

- ◆ Review the DLCD draft rules, provide feedback and direction, and formally adopt final rules into existing Statewide Land Use Planning Goals

Rulemaking Advisory Committee

- ◆ Advise DLCD on the OHNA policies and processes

Technical Advisory Committees

- ◆ Advise DLCD on the detailed rule concepts and drafts

Interested & Affected Parties

- ◆ Advise DLCD on the potential impacts of the OHNA on housing production, affordability, and choice including fair housing throughout the process

Consultants

- ◆ Advise DLCD on how to embed the DLCD Racial Equity Framework into the rulemaking process
- ◆ Produce deliverables, materials, and analysis to support the rulemaking process
- ◆ Facilitate RAC and TAC meetings, including meeting materials, agendas, and follow up summaries

Other State Agencies

- ◆ Coordinate as agency partners in the rulemaking process
- ◆ The Department of Administrative Services and Oregon Housing and Community Services must complete corollary work to establish the OHNA

Governor's Office

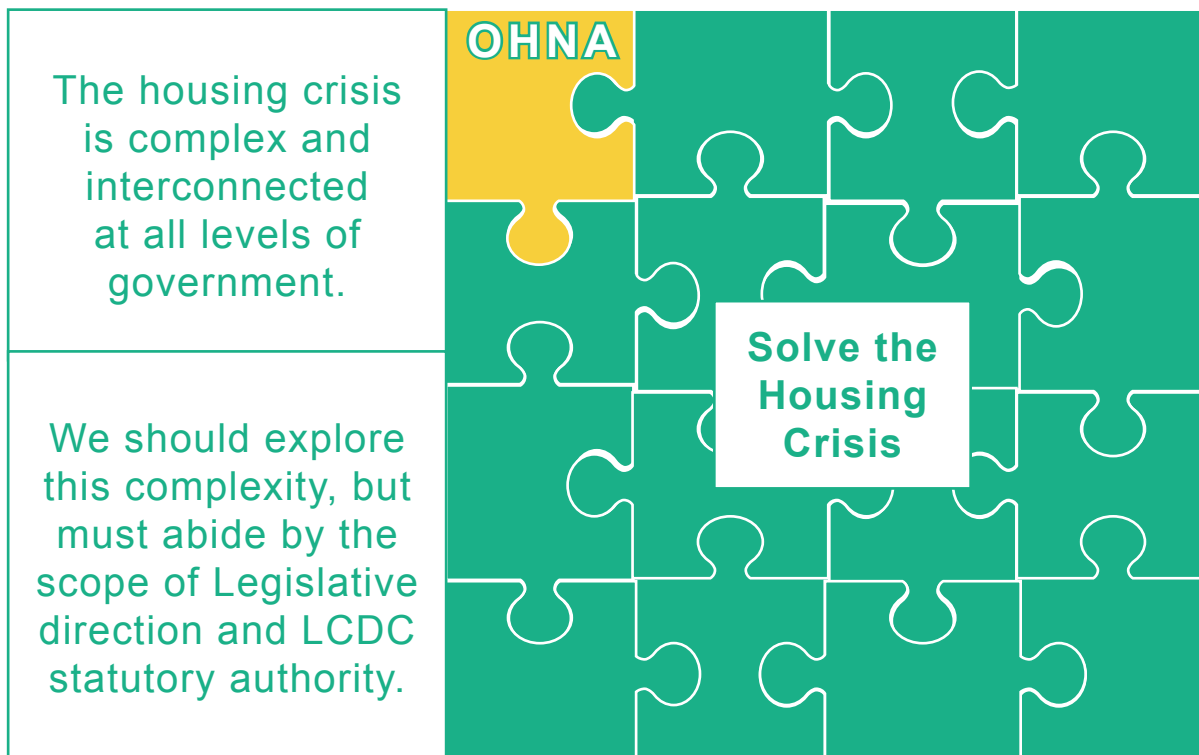
- ◆ Coordinate with DLCD and state agencies on rulemaking and implementation
- ◆ Provide strategic direction and support on implementation

What is the Scope of the OHNA Rulemaking Process?

To help address the housing crisis playing out across Oregon, the Legislature and Governor Tina Kotek directed DLCD to iterate housing planning in the state to **ensure that all Oregonians have access to safe, affordable housing in their communities of choice that meets their needs.**

While the OHNA, and its rulemaking process, are intended to reduce barriers to production, affordability, and choice, there are limitations on what the OHNA can do and what the rulemaking process can do. Housing is subject to the market dynamics as well as public policies and investments that affect development. Economic factors such as access to capital, interest rates, the availability and cost of labor and materials, and the types of housing that are desired all affect the development pipeline. And many local, state, and federal policies and investments influence housing production and affordability. While this rulemaking can help address some of these dynamics in local housing planning, it will not be able to address everything that affects housing.

Furthermore, it is important to acknowledge that historic policies and (dis)investments have resulted in substantially disparate housing outcomes, particularly for protected classes and communities of color. Systemic discrimination, intergenerational poverty, and the legacies of historic policies that made housing affordable and plentiful for certain households while keeping it out of reach for many others, have exacerbated and perpetuated disparate outcomes that persist today for households of color and other protected classes. While the OHNA requires local and state action to identify and address these historic disparities, it is important to recognize that it is one part of a broader body of work needed to redress past harm.





What Does OHNA Implementation Entail?

OHCS and DAS also have responsibilities to implement the OHNA in partnership with DLCD. This includes:

Finalize the OHNA Methodology

- Starting January 1, 2025 and continuing annually, the Office of Economic Analysis at DAS will run the OHNA methodology to provide an estimate of Housing Need for the state divided into regions. This need will be allocated to local governments and will form the basis of Housing Production Targets. OHCS and DLCD will be refining the methodology throughout 2024.

Establish a Housing Production Dashboard

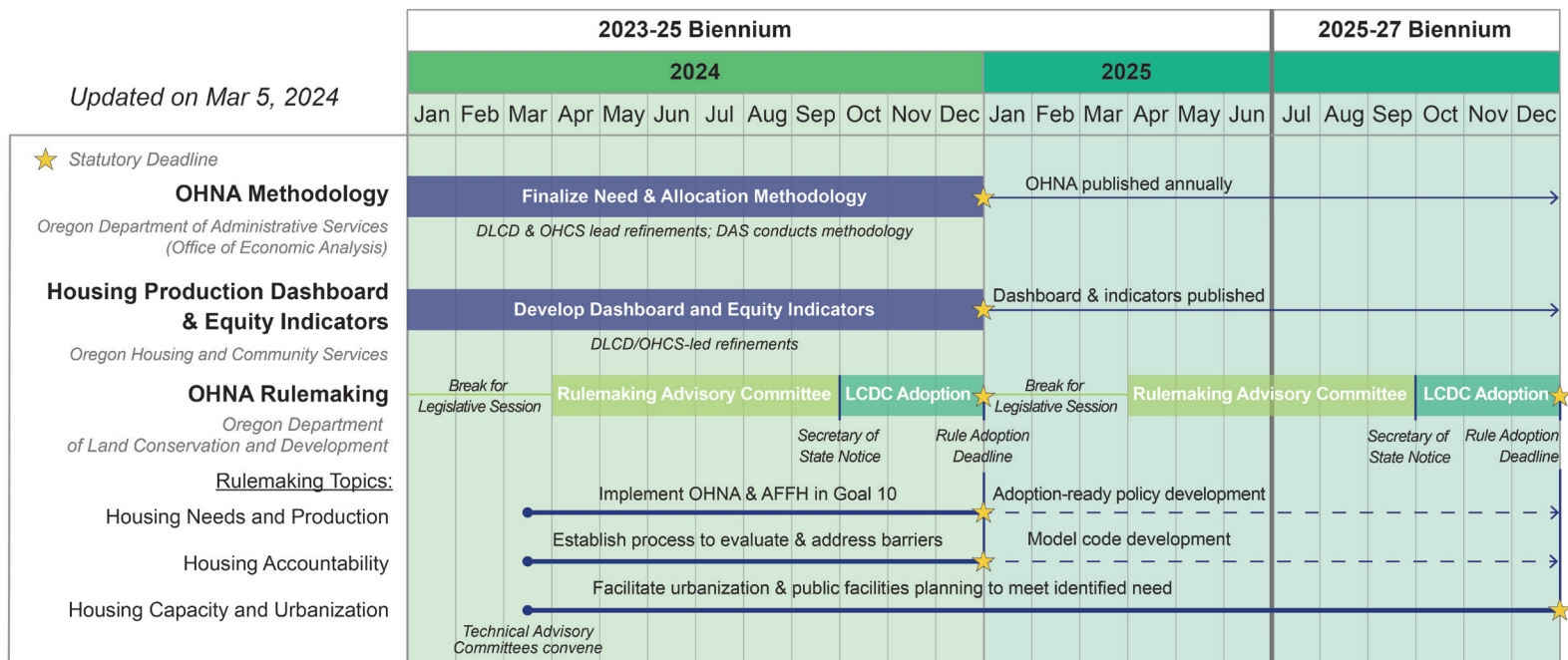
- OHCS must develop a **Housing Production Dashboard** by January 1, 2025 where progress toward housing production targets will be published and updated annually.

Develop Housing Equity Indicators

- OHCS must also develop a set of **Housing Equity Indicators** by January 1, 2025 that will provide all cities with information on how their communities perform on housing outcomes such as cost burdening, access to housing with needed characteristics like accessibility for a number of disabilities, and other indicators to be determined.


What is the OHNA Implementation Timeline?

DLCD is leading the OHNA implementation and rulemaking process through December 2025. OHCS and DAS have statutory deadlines as outlined below.



1. See House Bills [2001](#) & [2889](#) (2023 Session). Codified in [Oregon Laws 2023, chapter 13](#) and Oregon Revised Statute (ORS) chapters 195, 197, 197A, and 456

Memorandum

To: Planning Commission/Commission Advisory Committee
 From: Derrick Tokos, Community Development Director 
 Date: September 18, 2024
 Re: Scope of Work for Updating Newport's System Development Charge Methodology

The City last updated its System Development Charge (SDC) Methodology in 2017, and there have been a number of updates to the City's capital facility plans since that time. As part of the fiscal year 2024/25 budget, funds were allocated to update the methodology.

When the City updated its SDC methodology in 2017, it made a significant change in how it assessed residential development, shifting from a "one size fits all" to a price per square foot approach. The City also limited the number of SDC eligible projects. This reduced the SDC assessments enough that the City Council was comfortable adopting an Affordable Housing Construction Excise Tax, the framework for which was also developed as part of the 2017 effort.

These changes have been fairly effective, and it is likely that this round of updates will focus more on improving upon the previous work than making wholesale changes to the City's methodology. With that in mind, I adjusted the outreach component such that it leans on work sessions with the Planning Commission and City Council as opposed to a separately formed advisory committee. Additionally, the scope of work assumes that the City will continue to charge an improvement fee only, and will not seek to also charge a reimbursement fee. That is, the City will charge for the impact that a development has on the existing public system, but will not seek to have a developer reimburse the City for its use of "excess capacity" in a public improvement that the City previously installed. Lastly, the scope of work includes the development of a web based fee estimator that individuals could use to better understand the upfront cost of developing their property. This would be a significant enhancement from where we are at right now.

There may be SDC related bills in the upcoming legislative session, and we will want to be nimble enough to address them with this update if they get traction.

Attached is a draft request for proposals with the scope of work. Please review the document and come prepared to discuss whether or not it is on point or needs adjustment. I have also attached, as background, the City's existing SDC rate sheet, the City's 2017 SDC Methodology, the League of Oregon Cities 2023 SDC Survey, and a 2023 study by Oregon Housing and Community Services that evaluated the impact of SDCs on housing.

I look forward to our discussion.

Attachments:

Draft SDC Methodology Update RFP
 Newport SDC Rate Sheet
 Newport 2017 SDC Methodology
 League of Oregon Cities SDC Survey, 2023
 Oregon System Development Charge Study, 2022 (OHCS)

CITY OF NEWPORT
169 SW COAST HWY
NEWPORT, OREGON 97365

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CITY OF NEWPORT, OREGON

REQUEST FOR PROPOSALS

for

CONSULTING SERVICES TO UPDATE THE CITY OF NEWPORT'S SYSTEM DEVELOPMENT CHARGE METHODOLOGY, ORDINANCE, AND IMPLEMENTATION TOOLS

PROPOSALS DUE: _____, by 5:00 pm

SUBMIT PROPOSAL TO:

Derrick I. Tokos, AICP
Community Development Director
City of Newport
169 SW Coast Highway
Newport, Oregon 97365



CITY OF NEWPORT, OREGON

Request for Proposals

Consulting Services to Revise the City of Newport's System Development Charge Methodology, Ordinance, and Implementation Tools

1. INTRODUCTION

The City of Newport is seeking proposals from qualified individuals, firms, teams (hereinafter referred to as Consultant), with demonstrated experience in evaluating and updating municipal System Development Charge (SDC) methodologies and performing fee studies.

2. PROJECT OVERVIEW

The purpose of this project is to update the City of Newport's 2017 System Development Charge Methodology and Ordinance to (a) ensure that formulas used to establish SDC fees accurately account for the impact new development has on capital systems and are proportional to the scale of a project; (b) update capital project lists to align with current facilities plans and confirm that projects listed are likely to be needed in a 20-year planning period; (c) promote affordable housing; and (d) gauge impact of proposed SDC rate adjustments, in conjunction with Construction Excise Tax (CET), building fees, and other upfront costs to ensure that they are in line with other similarly situated communities. The work and resulting recommendations shall be in line with industry standards/best practices and adhere to statutes and case law governing the collection of SDCs.

In addition, Consultant is to develop a web based tool that individuals can use to estimate their upfront development costs, including SDC, CET and building permit fees. Further will update or replace City's existing Excel-based SDC calculator. Both tools must be designed such that they can be maintained and updated by city staff.

3. DRAFT SCOPE OF WORK

This draft scope of work represents the City's best estimate of the work needed to accomplish the objectives for this project. The City is open to alternative approaches that may deviate from this scope to better meet project objectives.

A. Project Initiation and Kick-off. Staff will provide Consultant with relevant background information in an electronic format, where available. This may include, but is not limited to:

1. 2017 System Development Charge Methodology
2. SDC Rate Adjustment Resolutions and Worksheets
3. Construction Excise Tax Resolutions and Worksheets
4. Historical Permit Data
5. Transportation System Plan (2022)
6. Water System Master Plan (draft)
7. Wastewater System Master Plan – Collections (2018)
8. Wastewater System Master Plan – Treatment Plant (draft)
9. Stormwater Master Plan (2018)
10. Airport Master Plan (2018)

- 11. Newport Northside Urban Renewal Plan
- 12. McLean Point Urban Renewal Plan

Consultant shall review the background materials and meet with City staff to clarify study objectives, discuss existing SDC issues and methodology alternatives, and confirm key policy considerations that could inform the work.

Product: Meeting notes summarizing agreed upon outcomes.

- B. Overview of SDC Laws and Methodology Alternatives. Consultant will prepare a technical memorandum which provides an overview of the Oregon SDC legal requirements per ORS 223.297-223.314, and current City of Newport SDC Methodology, ordinance, and related assumptions used for its cost basis, growth basis, credit policies, exemptions and other features. The memorandum will further outline approaches the City may consider when updating its SDC methodology, considering best practices and innovative initiatives being undertaken by other communities. Consultant will hold a video-conference call with City staff to discuss methodology alternatives. Once the product is finalized, Consultant will prepare a PowerPoint summarizing the key points and present the information to the Newport Planning Commission and City Council. Feedback received from the Commission and Council would be used to inform future tasks.

Product: SDC law and methodology alternatives memo, PowerPoint presentation, notes summarizing feedback from the Planning Commission and City Council.

- C. Confirmation of Eligible Capital Projects. Consultant shall prepare a detailed list of capital projects identified to date in City's adopted and draft facility plans that are eligible for improvement system development charges. Planning level cost estimates for eligible projects are to be escalated as appropriate. From that list, a recommended set of projects will be identified considering alternative funding sources and the likelihood that the work will be performed in a 20-year planning period. Lists will identify the percentage eligibility of a project with assumptions used to establish the percentages outlined in narrative form. Consultant to present the information to city staff to confirm or adjust the recommendations. **City's existing SDC Methodology is not structured to collect reimbursement fees, and the City does not anticipate adding a reimbursement fee component to its SDC Methodology as part of this project.**

Product: Capital project eligibility lists with text descriptions and/or maps sufficient to accurately describe the location and extent of the public improvements.

- D. SDC Methodology Alternatives Analysis. Consultant shall prepare a memo that summarizes and evaluates alternative approaches to Newport's SDC methodology, and identify a recommended methodology for each public facility type. Key issues may include SDC improvement fee cost basis, selection of eligible projects, units of growth and credit policies. Specific consideration shall be given to steps that can be taken to promote affordable housing, and ensure that fees charged are proportional to the scale of a project. When determining an appropriate cost basis for SDC assessments, Consultant shall consider the full scope of upfront development fees assessed by the City, including CETs, and building fees. Consultant to present the information in memo format to City staff, and as a PowerPoint presentation to the Newport Planning Commission and City Council.

Product: Alternatives analysis memo and PowerPoint presentation outlining key findings and recommendations for potential changes to the City's SDC Methodology and ordinance.

- E. System Development Charge Online Tool and Calculator. Consultant will develop a web-based fee estimation tool that individuals can use to calculate anticipated upfront development charges attributed to their development project. This includes System Development Charges, Construction Excise Taxes, and building plan review and permit fees. Additionally, Consultant will update or develop a new Excel based SDC fee calculator for use by City staff. Both the online tool and calculator are to be structured such that they can be readily edited and updated by City staff.

Product: Web based fee estimation tool and SDC calculator.

- F. Draft Report. Consultant to prepare a draft update to the City's System Development Charge Methodology and recommended set of ordinance updates that incorporates the information and recommendations derived from the previous tasks. City staff will circulate the document to the Planning Commission and City Council, and Consultant will attend those meetings to obtain feedback on the draft document. Video-conference participation at these meetings is an option.

Product: Draft update to the City's System Development Charge Methodology.

- G. Final Reports. Consultant shall prepare a final draft of the updated System Development Charge Methodology. The report must summarize the public engagement process, alternatives considered, and the rationale for recommended revisions. The report shall also be formatted such that the graphics and text can be readily incorporated by the City into other planning documents. City staff will prepare documents related to the adoption of the methodology; however, Consultant shall be available to provide at least one round of edits to address feedback received from the Newport Planning Commission and City Council.

Product: Final draft of the updated System Development Charge methodology, with recommended ordinance changes.

Consultant shall coordinate as needed with City staff throughout the process. Unless otherwise specified, it is the City's preference that work product be delivered in an electronic format. It is the City's expectation that Consultant will be able to utilize technical data from City's existing facility plans, where available, to inform the development of planning level cost estimates.

4. PROJECT SCHEDULE

It is City's desire that the project be completed by the end of fiscal year 2024/25 (i.e. June 30, 2025), with key fiscal recommendations being identified in a preliminary manner by the end of April 2025, so that they can be considered as part of the budget process.

5. TASKS TO BE PERFORMED BY CITY

City staff will coordinate the scheduling of Planning Commission and City Council meetings, and will prepare implementing ordinance or resolution, as applicable. Staff will also provide Consultant with technical assistance at all stages of the project.

6. BUDGET AND SOURCE OF FUNDS

The City has budgeted a total of \$85,000 for this project, and expects that a portion of those funds will need to be reserved to address issues, outside of the project scope, that are identified after the project has been initiated.

7. PROJECT PROPOSAL REQUIREMENTS

Proposals should be organized in the following format:

- A. Cover Letter. Provide a cover letter, signed by a duly constituted official legally authorized to bind the proposer to both its proposal and cost estimate. The cover letter must include the name, address, and telephone number of the proposer submitting the proposal and the name, title, address, telephone number, fax number, and email address of the person, or persons, to contact whom are authorized to represent the proposer and to whom correspondence should be directed.
- B. Project Approach and Understanding. Provide a detailed description of the Consultant's proposed approach demonstrating how the City's objectives will be accomplished as outlined in the above draft Scope of Work. Clearly describe and explain the reason for any proposed modifications to the methods, tasks and products identified in the draft Scope of Work outlined in Section 3 of this RFP.
- C. Project Organization and Team Qualifications. Identification of all services to be provided by the principal firm and those proposed to be provided by subcontractors and information regarding the firm(s) assigned to the project including size of firm(s) and overall capabilities of each as considered relevant to this project. Provide information regarding all personnel assigned as team members to this project including names, prior experience, position, role and level of responsibility in the project. The City reserves the right to reject any proposed firm or team member or to request their reassignment. The project manager shall be identified by name and shall not be changed without written approval by the City. The principal consulting firm must assume responsibility for any sub-consultant work and shall be responsible for the day to day management and direction of the project.
- D. Project Timeline. Proposed timeline for accomplishing the project, including critical paths and milestones, and specific consulting staff by task based on the draft Scope of Work.
- E. Project Coordination and Monitoring. Describe the process for ensuring effective communication between the Consultant and the City, and for monitoring progress to ensure compliance with approved timeline, budget, staffing and deliverables.
- F. Proposed Cost of Services. Provide a budget summary broken down by task, time, personnel, and hourly rate, number of hours and cost for each team member including those employed by subcontractors. Fee information should be formatted to correspond to tasks identified in this RFP; however, this format may be modified to suit the consultant's approach to this project. The summary shall include a budget for reimbursable expenses. The final cost of consulting services may be based on a negotiated detailed scope of work. The budget summary shall also include all required materials and other direct costs, administrative support, overhead and profit that will apply.

G. Similar Project Experience. Specific examples of comparable work which best demonstrate the qualifications and ability of the team to accomplish the overall goals of the project under financial and time constraints. Provide names, addresses and telephone numbers of clients associated with each of these projects. Through submission of a proposal, all respondents specifically agree to and release the City of Newport to solicit, secure and confirm information provided.

8. SELECTION OF PROPOSALS

Proposals will be evaluated based on the following criteria:

Thoroughness, quality and conciseness of submittal.	20 pts.
Project understanding and approach for accomplishing the City’s objectives.	20 pts.
Qualifications of the project manager and project team, and proven ability to successfully complete projects of similar scope.	20 pts.
Proposed cost of services.	15 pts.
Ability to complete the Scope of Work within six (6) months of when the consulting contract is signed.	10 pts.
References from past and present clients.	15 pts.
Total	100 pts.

9. EVALUATION PROCESS

For questions regarding this RFP please contact Derrick I. Tokos, AICP, Community Development Director, City of Newport, at d.tokos@newportoregon.gov or 541-574-0626.

Interested parties should contact Derrick Tokos, Newport Community Development Director, to indicate their interest in submitting a proposal and specify the manner to receive any amendments to the RFP. Any amendments to this RFP will be in writing and will be issued to all persons or businesses that have indicated an interest to receive RFP amendments. No proposal will be considered if it is not responsive to any issued amendments.

Proposals may be submitted electronically by email to Community Development Director, or they may be submitted in hard copy form to the attention of the Community Development Director at Newport City Hall (169 SW Coast Hwy, Newport, Oregon 97365). **Responses to this RFP are due no later than 5:00 pm, _____.**

Responders may be invited to present their proposal to the City. This may be in person or a video-conference format. A final selection is anticipated to occur no later than _____.

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System Development Charge (SDC) Rates

(Rates effective July 1, 2024)

Water System Development Charge

Single Family, per Square Foot (SF)

0-1,700 \$0.75

1,701-2,900 \$0.61

2,900+ \$0.49

All other, per Equivalent Dwelling Unit (EDU): \$1,493

Wastewater System Development Charge

Single Family, per SF

0-1,700 \$1.32

1,701-2,900 \$1.06

2,900+ \$0.87

All other, per EDU: \$2,650.16

Stormwater System Development Charge

Single Family, per SF

0-1,700 \$1.00

1,701-2,900 \$0.60

2,900+ \$0.48

All other, per Impervious Surface Feet (ISA): \$0.55

Transportation System Development Charge

Single Family, per SF

0-1,700 \$1.51

1,701-2,900 \$1.43

2,900+ \$1.31

All other, per Average Daily Vehicle Trip (ADVT): \$397.06

Retail/Restaurant ADVT Trip Discount

(Applies to Bayfront, Nye Beach, City Center and Wilder Special Districts): 20%

Parks Development Charge

Single Family, per SF \$0.63

All Other, per Unit \$783.86

Notes:

1. Accessory Dwelling Units are charged at the small home rate.
2. The term "Single Family" includes detached and attached structures. Residential additions are assessed at the per SF rate for increases in useable floor area.
3. Administrative fee of 4.18% is included in the listed fees.
4. Resolution No. 3786 requires SDC rates be adjusted annually based upon the most recent Construction Cost Index available as of April 1st of each year.

Calculating Equivalent Dwelling Units

The meter conversion table to the right shall be used to calculate the number of equivalent dwelling units for multi-family, other residential, and non-residential development projects.

If the meter conversion table does not fit the application well then the number of equivalent dwelling units may be calculated using the chart below.

Meter Size Characteristics		
Disc or Compound Meters	Maximum Continuous Flow (gpm)	Flow/SDC EDU Factor
3/4"	15	1.00
1-inch	25	1.67
1 1/2 inch	50	3.33
2-inch	80	5.33
3-inch	160	10.67
4-inch	250	16.67
6-inch	500	33.33
8-inch	800	53.33
Turbine Meters		
4-inch	315	21.00
6-inch	700	46.67
8-inch	1,200	80.00

Enterprise	EDUs	Units
Apartments	N/A	See meter sizing assessment table
Apparel Store	0.2	Per 1,000 sqft.
Athletic Club	0.3	Per 1,000 sqft.
Auto Care	0.1	Per service bay
Auto Parts Sales	0.2	Per 1,000 sqft.
Auto Sales	0.2	Per 1,000 sqft.
Bank, Drive-in	0.3	Per 1,000 sqft.
Bank, Walk-in	0.3	Per 1,000 sqft.
Building Material and Lumber Store	0.2	Per 1,000 sqft.
Cab Company	0.2	Per 1,000 sqft.
Car Wash, Automated	N/A	See meter sizing assessment table
Car Wash, Self Service	0.7	Per stall
Cemetery	0.2	Per 1,000 sqft.
Church	0.2	Per 1,000 sqft.
Convenience Market (24 hrs.)	0.2	Per 1,000 sqft.
Convenience Market (15-16 hrs.)	0.2	Per 1,000 sqft.
Convenience Market w/ Gasoline Pumps	0.2	Per 1,000 sqft.
Day Care	0.2	Per student
Drinking Establishment	0.7	Per 1,000 sqft.
Furniture Store	0.2	Per 1,000 sqft.
Hardware/Paint	0.2	Per 1,000 sqft.
Health/Fitness Club	0.3	Per 1,000 sqft.
Hospital	1	See meter sizing assessment table
Industrial	1	See meter sizing assessment table
Library	0.2	Per 1,000 sqft.
Lodge/Fraternal	0.3	Per 1,000 sqft.
Manufacturing	0.2	Per 1,000 sqft.
Medical/Dental Office	0.4	Per 1,000 sqft.
Mini-Warehouse Storage and Warehouses	0.1	Per 1,000 sqft.
Mobile Home Park	0.75	Per dwelling unit
Motel/Hotel without kitchenette	0.4	Per room
Motel/Hotel with kitchenette	0.6	Per room
Nursery Garden Center	0.2	Per 1,000 sqft.
Nursing Home	0.3	Per bed
Office Building	0.2	Per 1,000 sqft.
Retail Establishment, Shopping Center, Grocery, Etc.	0.2	Per 1,000 sqft.
Post Office	0.2	Per 1,000 sqft.
Quick Lubrication Vehicle Stop	0.1	Per bay
Recreational Facility, Multipurpose	0.3	Per 1,000 sqft.
Restaurant, any type*	N/A	See meter sizing assessment table
Schools (K through 12)	1	Per 625 gross sqft.
Schools (post secondary)	1	Per 625 gross sqft.
Service Station	0.1	Per bay
Service Station w/Convenience Market	0.1	Per pump
Single Family Detached Housing	1	Per house
Fish Processing Facility	N/A	See meter sizing assessment table
Pools and Aquatic Facilities	N/A	See meter sizing assessment table
Brewery	N/A	See meter sizing assessment table
Movie Theater	0.3	Per 100 seats
Commercial/Coin-op Laundry	N/A	See meter sizing assessment table

* Note, if in mixed-use building with shared water meter, restaurants will also be assessed 1 EDU per 500 SF.

Calculating Average Daily Vehicle Trips

For multi-family, other residential, and non-residential projects, the number of adjusted average daily vehicle trips per unit of development can be calculated using the tables below.

City of Newport Transportation SDCs, FY 2017/18			ADT					Trip Categories			Adjusted Trip Rates	\$ 316.71
ITE Code	Land Use	Unit	Average	Primary	Pass By	Diverter	Linked	Total	Primary ADT	Transit/ Ped Factor*	Adjusted ADT	SDC per Unit
10	Waterport/Marine Terminal	Acre	11.93	100%				100%	11.93		11.93	\$3,778
20	General Aviation Airport	Avg. Flights/Day	1.98	100%				100%	1.98		1.98	\$627
30	Intermodal Truck Terminal	Acre	62.51	100%				100%	62.51		62.51	\$19,798
110	General Light Industrial	1,000 SFGFA	5.26	100%				100%	5.26		5.26	\$1,667
120	General Heavy Industrial	1,000 SFGFA	1.50	100%				100%	1.50		1.50	\$475
130	Industrial Park	1,000 SFGFA	5.34	100%				100%	5.34		5.34	\$1,691
140	Manufacturing	1,000 SFGFA	3.03	100%				100%	3.03		3.03	\$960
150-51	Warehouse*	1,000 SFGFA	2.96	100%				100%	2.96		2.96	\$937
160	Data Center	1,000 SFGFA	0.99	100%				100%	0.99		0.99	\$314
170	Utilities	1,000 SFGFA	0.20	100%				100%	0.20		0.20	\$63
210	Single-Family Housing (incl. duplex)	Dwelling unit	9.45	100%				100%	9.45		9.45	\$2,992
220	Apartment	Dwelling unit	6.50	100%				100%	6.50	25%	4.88	\$1,544
230	Residential Condominium/Townhouse	Dwelling unit	5.65	100%				100%	5.65	25%	4.24	\$1,342
240	Mobile Home Park	ODU	4.90	100%				100%	4.90		4.90	\$1,552
252	Senior Adult Housing	Dwelling unit	3.44	100%				100%	3.44	25%	2.58	\$817
254	Assisted Living	Bed	2.56	100%				100%	2.56	25%	1.92	\$609
310	Hotel	Room	7.86	100%				100%	7.86		7.86	\$2,488
320	Motel	Room	5.63	100%				100%	5.63		5.63	\$1,783
411	City Park	Acre	6.13	100%				100%	6.13		6.13	\$1,942
412	County Park	Acre	5.10	100%				100%	5.10		5.10	\$1,614
413	State Park	Acre	0.71	100%				100%	0.71		0.71	\$224
417	Regional Park	Acre	4.99	100%				100%	4.99		4.99	\$1,581
430	Golf Course	Acre	5.27	100%				100%	5.27		5.27	\$1,670
444	Movie Theater with Matinee	Movie screen	387.03	100%				100%	387.03		387.03	\$122,577
480	Amusement Park	Acre	104.29	100%				100%	104.29		104.29	\$33,029
481	Zoo	Acre	114.88	100%				100%	114.88		114.88	\$36,384
491	Health/Fitness Club	1,000 SFGFA	30.32	100%				100%	30.32		30.32	\$9,603
492	Racquet/Tennis Club	Acre	16.19	100%				100%	16.19		16.19	\$5,128
494	Bowling Alley	Bowling Lane	34.90	100%				100%	34.90		34.90	\$11,053
495	Recreational Community Center	1,000 SFGFA	27.40	100%				100%	27.40		27.40	\$8,678
520	Elementary School	1,000 SFGFA	12.07	59%	41%			100%	7.12		7.12	\$2,256
522	Middle School/Junior High School	1,000 SFGFA	10.78	59%	41%			100%	6.36		6.36	\$2,015
530	High School	1,000 SFGFA	10.09	59%	41%			100%	5.95		5.95	\$1,885
540-50	University/Community College	Students	1.71	100%				100%	1.71		1.71	\$542
560	Church	1,000 SFGFA	13.22	100%				100%	13.22		13.22	\$4,187
565	Day Care Center	1,000 SFGFA	54.62	33%	67%			100%	18.02		18.02	\$5,709
590	Library	1,000 SFGFA	50.46	100%				100%	50.46		50.46	\$15,982
610	Hospital	1,000 SFGFA	12.17	100%				100%	12.17		12.17	\$3,854

City of Newport Transportation SDCs, FY 2017/18			ADT					Trip Categories			Adjusted Trip Rates	\$ 316.71
ITE Code	Land Use	Unit	Average	Primary	Pass By	Diverter	Linked	Total	Primary ADT	Transit/ Ped Factor*	Adjusted ADT	SDC per Unit
620	Nursing Home	1,000 SFGFA	7.21	100%				100%	7.21		7.21	\$2,284
710	General Office Building*	1,000 SFGFA	8.38	80%	20%			100%	6.70		6.70	\$2,123
715	Single Tenant Office Building*	1,000 SFGFA	11.65	80%	20%			100%	9.32		9.32	\$2,952
720	Medical-Dental Office Building*	1,000 SFGFA	27.31	80%	20%			100%	21.85		21.85	\$6,919
730	Government Office Building*	1,000 SFGFA	68.93	80%	20%			100%	55.14		55.14	\$17,465
731	State Motor Vehicles Department*	1,000 SFGFA	120.90	80%	20%			100%	96.72		96.72	\$30,632
732	United States Post Office	1,000 SFGFA	88.35	100%				100%	88.35		88.35	\$27,981
750	Office Park	1,000 SFGFA	8.50	80%	20%			100%	6.80		6.80	\$2,154
760	Research and Development Center*	1,000 SFGFA	6.22	100%				100%	6.22		6.22	\$1,971
770	Business Park*	1,000 SFGFA	9.44	80%	20%			100%	7.55		7.55	\$2,391
812	Building Materials and Lumber Store*	1,000 SFGFA	43.13	72%	28%			100%	31.05		31.05	\$9,835
813	Free-Standing Discount Superstore	1,000 SFGFA	53.42	72%	28%			100%	38.46		38.46	\$12,181
814	Variety Store	1,000 SFGFA	64.03	48%	17%	35%		100%	30.57		30.57	\$9,683
815	Free-Standing Discount Store	1,000 SFGFA	59.09	48%	17%	35%		100%	28.22		28.22	\$8,936
816	Hardware/Paint Store	1,000 SFGFA	58.23	45%	26%	30%		100%	25.91		25.91	\$8,207
817	Nursery (Garden Center)*	1,000 SFGFA	82.86	72%	28%			100%	59.66		59.66	\$18,894
818	Nursery Wholesale	Acre	19.50	100%				100%	19.50		19.50	\$6,176
820	Shopping Center	1,000 SFGFA	41.24	50%	34%	16%		100%	20.68		20.68	\$6,550
826	Specialty Retail Center*	1,000 SFGFA	40.58	46%	22%	32%		100%	18.72		18.72	\$5,928
841	Automobile Sales	1,000 SFGFA	29.27	100%				100%	29.27		29.27	\$9,269
843	Automobile Parts Sales	1,000 SFGFA	61.91	44%	43%	13%		100%	27.24		27.24	\$8,627
848	Tire Store	1,000 SFGFA	24.87	69%	28%	3%		100%	17.08		17.08	\$5,409
850	Supermarket	1,000 SFGFA	122.18	39%	36%	25%		100%	47.34		47.34	\$14,994
851	Convenience Market (Open 24 Hours)	1,000 SFGFA	758.79	33%	61%	6%		100%	246.81		246.81	\$78,166
857	Discount Club	1,000 SFGFA	42.35	100%				100%	42.35		42.35	\$13,411
862	Home Improvement Superstore	1,000 SFGFA	38.03	44%	48%	8%		100%	16.73		16.73	\$5,300
880	Pharmacy/Drugstore without Drive-Through	1,000 SFGFA	90.06	42%	53%	5%		100%	38.13		38.13	\$12,075
881	Pharmacy/Drugstore with Drive-Through	1,000 SFGFA	96.91	38%	49%	13%		100%	36.83		36.83	\$11,663
890	Furniture Store	1,000 SFGFA	4.98	37%	53%	10%		100%	1.83		1.83	\$579
912	Bank with Drive-Through	1,000 SFGFA	122.71	27%	47%	26%		100%	33.54		33.54	\$10,623
925	Drinking Place	1,000 SFGFA	125.70	60%	40%			100%	75.42		75.42	\$23,886
931-2	Sit-Down Restaurant**	1,000 SFGFA	88.04	43%	44%	14%		100%	37.42		37.42	\$11,850
933	Fast-Food Restaurant without Drive-Through	1,000 SFGFA	40.14	43%	44%	14%		100%	17.06		17.06	\$5,402
934	Fast-Food Restaurant with Drive-Through	1,000 SFGFA	535.05	41%	50%	9%		100%	219.07		219.07	\$69,383
936	Coffee/Donut Shop without Drive-Through	100 SFGFA	598.00	56%	44%	0%		100%	334.88		334.88	\$10,606
937	Coffee/Donut Shop with Drive-Through*	100 SFGFA	818.58	41%	50%	9%		100%	335.16		335.16	\$10,615
944	Gasoline/Service Station	VFP	168.56	35%	42%	23%		100%	59.00		59.00	\$18,685
945	Gasoline Station with Convenience Market	VFP	162.78	13%	56%	31%		100%	20.80		20.80	\$6,587
946	Gasoline/Service Station with Car Wash	VFP	152.84	24%	49%	27%		100%	36.51		36.51	\$11,564

Source: ITE Trip Generation Handbook, 9th Edition; and local assumptions, compiled by FCS GROUP. * Denotes local assumptions by City staff.

Abbreviations

ADT	average daily vehicle trips
ODU	occupied dwelling unit
SFGFA	square feet of gross floor area
SFGLA	square feet of gross leasable area
VFP	vehicle fueling position

** denotes trips for ITE code 931 quality restaurant.

The following table includes the 20% Average Daily Vehicle Trip discount for retail and restaurant uses in the Bayfront, Nye Beach, City Center and Wilder Special Districts:

Newport Special District Transportation SDCs, FY 2017/18**		ADT		Trip Categories						Adjusted Trip Rates	\$	316.71
ITE Code	Land Use	Unit	Average	Primary	Pass By	Diverted Linked	Total	Primary ADT	Transit/ Ped Factor*	Adjusted ADT	SDC per Unit	
820	Shopping Center	1,000 SFGLA	41.2	50%	34%	16%	100%	20.7	20%	16.54	\$5,240	
826	Specialty Retail Center*	1,000 SFGLA	40.6	46%	22%	32%	100%	18.7	20%	14.97	\$4,743	
850	Supermarket	1,000 SFGFA	122.2	39%	36%	25%	100%	47.3	20%	37.87	\$11,995	
851	Convenience Market (Open 24 Hours)	1,000 SFGFA	758.8	33%	61%	6%	100%	246.8	20%	197.44	\$62,533	
925	Drinking Place	1,000 SFGFA	125.7	60%	40%		100%	75.4	20%	60.34	\$19,109	
931-2	Sit-Down Restaurant***	1,000 SFGFA	88.0	43%	44%	14%	100%	37.4	20%	29.93	\$9,480	
933	Fast-Food Restaurant without Drive-Through	1,000 SFGFA	40.1	43%	44%	14%	100%	17.1	20%	13.65	\$4,322	
934	Fast-Food Restaurant with Drive-Through	1,000 SFGFA	535.1	41%	50%	9%	100%	219.1	20%	175.26	\$55,506	
936	Coffee/Donut Shop without Drive-Through*	100 SFGFA	598.0	43%	44%	14%	100%	254.2	20%	203.32	\$6,439	
937	Coffee/Donut Shop with Drive-Through	100 SFGFA	818.6	41%	50%	9%	100%	335.2	20%	268.13	\$8,492	

Source: ITE Trip Generation Handbook, 9th Edition; and local assumptions, compiled by FCS GROUP. * Denotes local assumptions by City staff.

** Includes development within Historic Downtown area, Nye Beach area, Deco District area, or Wilder (South Beach) area.

Abbreviations		*** denotes ITE code 931 quality restaurant.									
ADT	average daily vehicle trips										
ODU	occupied dwelling unit										
SFGFA	square feet of gross floor area										
SFGLA	square feet of gross leasable area										
VFP	vehicle fueling position										



City of Newport

SYSTEM DEVELOPMENT CHARGE METHODOLOGY

June 13, 2017

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ACKNOWLEDGEMENTS

This work is made possible through the sincere input by City staff and the Newport SDC/CET Ad-hoc Advisory Committee. We appreciate the time and attention dedicated to this work by the following people:

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SECTION I: INTRODUCTION

This city of Newport SDC Methodology Report takes into account up-to-date growth forecasts, long-range capital improvements and local SDC calculation procedures. Newport's current system development charges (SDCs) were adopted in 2007, and subsequently indexed for inflation. Since the prior SDC methodology was adopted, the City completed several capital improvements, and has updated its public facility master plans for water (2008), wastewater (update in process), transportation (2012) and stormwater (update in process).

This section of the SDC Methodology Report describes the policy context and project scope upon which the City may create a new SDC that complies with Oregon legal requirements.

A. SYSTEM DEVELOPMENT CHARGES

Oregon Revised Statutes (ORS) 223.297 to 223.314 authorize local governments to establish system development charges (SDCs), one-time fees on all new development paid at the time of development. SDCs are paid by developers or property owners that change a use of a parcel or structure that generates additional transportation demand.

SDCs are intended to recover a fair share of the cost of existing and planned facilities that provide capacity to serve future growth. Cities can, and most do, implement SDCs on water, wastewater, sewer, parks, stormwater, and transportation infrastructure.

ORS 223.299 defines two types of SDCs:

- ◆ A reimbursement fee that is designed to recover “costs associated with capital improvements already constructed, or under construction when the fee is established, for which the local government determines that capacity exists”
- ◆ An improvement fee that is designed to recover “costs associated with capital improvements to be constructed”

ORS 223.304(1) states, in part, that a reimbursement fee must be based on “the value of unused capacity available to future system users or the cost of existing facilities” and must account for prior contributions by existing users and any gifted or grant-funded facilities. The calculation must “promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities.” A reimbursement fee may be spent on any capital improvement related to the system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon's SDC law.

ORS 223.304(2) states, in part, that an improvement fee must be calculated to include only the cost of projected capital improvements needed to increase system capacity for future users. In other words, the cost of planned projects that correct existing deficiencies or do not otherwise increase capacity for future users may not be included in the improvement fee calculation. An improvement fee may be spent only on capital improvements (or portions thereof) that increase the capacity of the

system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon’s SDC law.

B. SDC OVERVIEW

In general, SDCs are calculated by adding a reimbursement fee component and an improvement fee component—both with potential adjustments. Each component is calculated by dividing the eligible cost by growth in units of demand. The unit of demand becomes the basis of the charge. Below are details on the components and how they may be adjusted. **Exhibit 1.1** shows this calculation in equation format:

Exhibit 1.1 – SDC Equation			
Eligible costs of available capacity in existing facilities	+	Eligible costs of capacity-increasing capital improvements	+
Units of growth in demand		Units of growth in demand	Pro-rata share of costs of complying with Oregon SDC law
		=	SDC per unit of growth in demand

B.1 Reimbursement Fee

The reimbursement fee is the cost of available capacity per unit of growth that such available capacity will serve. In order for a reimbursement fee to be calculated, unused capacity must be available to serve future growth. For facility types that do not have excess capacity, no reimbursement fee may be calculated. **This SDC methodology recommends that Newport’s reimbursement SDCs be discontinued at this time.**

B.2 Improvement Fee

The improvement fee is the cost of planned capacity-increasing capital projects per unit of growth that those projects will serve. The unit of growth becomes the basis of the fee. In reality, the capacity added by many projects serves a dual purpose of both meeting existing demand and serving future growth. To compute a compliant improvement fee, growth-related costs must be isolated, and costs related to current demand must be excluded.

This SDC methodology is similar to the prior adopted methodology in use of the capacity approach to allocate costs to the improvement fee basis.¹ Under this approach, the cost of a given capital project is allocated to growth by the portion of total project capacity that represents capacity for future users. That portion, referred to as the improvement fee eligibility percentage, is multiplied by the total project cost to determine that project’s improvement fee cost basis.

B.3 SDC Cost Basis Adjustments

Most cities in Oregon include two types of SDC cost basis adjustments that are allowed under Oregon law. The deduction of current SDC fund balances reduces the fee basis. The other adjustment increases the SDC cost basis by including administrative costs of complying with the

¹ Two alternatives to the capacity approach are the incremental approach and the causation approach. The incremental approach is computationally complicated because it requires the computation of hypothetical project costs to serve existing users. Only the incremental cost of the actual project is included in the improvement fee cost basis. The causation approach, which allocates 100 percent of all growth-related projects to growth is often vulnerable to legal challenge.

SDC program. **This methodology includes both types of adjustments in the determination of the charges.**

Current SDC fund balances are shown in Exhibit 1.1.

Exhibit 1.1

Current Newport SDC Fund Balances	
	Fund Balance
Water	\$346,501
Sewer	\$313,859
Transportation	\$262,381
Stormwater	\$141,824
Parks	\$167,205

Source: City of Newport, FY 2015/16 audit.

ORS 223.307(5) authorizes the expenditure of SDCs for “the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.” To avoid spending monies for compliance that might otherwise have been spent on growth-related projects, this report includes an estimate of compliance costs in the SDC calculation.

C. CREDITS, EXEMPTIONS AND DISCOUNTS

The City of Newport SDC procedures for credits, exemptions and discounts are to be found in the Newport Municipal Code Chapter 12-15. The following narrative is provided for context.

C.1 Credits

A credit is a reduction in the amount of the SDC for a specific development. ORS 223.304 requires that credit be allowed for the construction of a qualified public improvement which: is required as a condition of development approval; is identified in the City’s capital improvements program; and either is “not located on or contiguous to property that is the subject of development approval,” or is located “on or contiguous to such property and is required to be built larger or with greater capacity than is necessary for the particular development project....”

Additionally, a credit must be granted “only for the cost of that portion of an improvement which exceeds the minimum standard facility size or capacity needed to serve” the particular project up to the amount of the improvement fee. For multi-phase projects, any “excess credit may be applied against SDCs that accrue in subsequent phases of the original development project.”

In addition to these credit policies required by state law, the City may consider amendments to its current credit policy (please refer to Newport municipal code Chapter 12-15) and adopt credit policies that: provide a greater credit amount than required by state law; establish a system providing for the transferability of credits; provide a credit for a capital improvement not identified in the City’s SDC Capital Improvement Plan; or provide a share of the cost of an improvement by other means.

State statute [ORS 223.304(5)(d)] provides a sunset clause for credits limiting their use to not later than 10 years from the date the credit is given.

SDC credits that comply with the state’s minimum credit policy do not create an SDC revenue gap. A policy that provides SDC credits above the legal minimum usually decreases SDC revenues and reduces the likelihood of the City to complete its long range capital improvement program.

C.2 Exemptions

The City may exempt specific classifications of development, such as minor building alterations or Accessory Dwelling Units (ADUs) from the requirement to pay SDCs. The City may not arbitrarily exempt customers or customer types from SDCs; it must have a cost or demand-based justification.

C.3 Discounts

The City can also apply discounts to SDCs based on local policy preference. For example, the City of Newport currently discounts parks SDCs by a factor of 50% and transportation SDCs by a factor of 90%. These discounts were based on the perceived inability for the market to bear the full weight of the SDC charges.

After discussion with the Newport SDC Ad Hoc Advisory Committee, it is recommended that the City of Newport have one discount rate that is to be applied to transportation, parks, water and waste water facilities, as shown in Exhibit 1.2.

Exhibit 1.2: SDC Discounts per City Policy	FY 2017/18
Water	45%
Sewer	45%
Transportation	45%
Stormwater	0%
Parks	45%

Many cities in Oregon may also apply a cost-based SDC reduction for area-specific SDCs, such as downtown locations, when development in such designated locations is expected to generate relatively lower public facility system demand in comparison to other locations. **This methodology includes adjusted area-specific transportation SDCs for retail developments within designated areas including the Historic Downtown, City Center/Deco District, Nye Beach area, and Wilder (South Beach area) given likelihood of generating less vehicle trips than the rest of the city based on transit service levels and pedestrian walkability.**

It should be noted that the use of discounts may result in under-collection of future SDC revenues. If discounts are used, it is recommended that cities prepare contingency plans to identify other funding sources for foregone revenues (i.e., state or federal grants, urban renewal funds, or new local funding sources such as voter-approved G.O. bonds).

C.4 SDC Phase-In Strategies

This SDC Methodology Report identifies the maximum SDCs that Newport can charge; as well as the recommended SDCs that the City should charge in year 1 (FY 2017/18) after discounts are applied.

Newport can opt to phase-in the maximum defensible SDC amount over time by charging an established percentage of the maximum SDC each year. It should be noted that doing so will decrease total SDC revenue and require additional funding sources for the City to complete the SDC project list. Additional funding sources to supplant revenues lost from foregone SDCs could include street

utility fee surcharges, a local option levy, local improvement districts, reimbursement districts, or developer/property owner right of way dedications.

D. INDEXING

Oregon law (ORS 223.304) also allows for the periodic indexing of SDCs for inflation, as long as the index used is:

- “(A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;
- (B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and
- (C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order.”

The City of Newport currently indexes its SDCs annually. **It is recommended that the City index its charges to the *Engineering News Record Construction Cost Index 20-city average* and continue to adjust its charges annually.**

E. OTHER SDC STATUTORY PROVISIONS

Other applicable provisions of the Oregon SDC legislation, include:

- SDCs must be based on an adopted local capital improvement program/plan (CIP) or comparable planning effort that lists qualified public improvements to be funded with SDCs and the estimated timing, cost and SDC-eligible share of each improvement to be funded with SDCs. The current CIPs that serve as the SDC cost basis used in this report are included in the Appendix.
- SDC revenues must be deposited into a dedicated individual account with annual accounting of revenues and expenditures. The annual accounting effort must include a list detailing the amount spent on each project funded, in whole or in part, by SDC revenues, including costs attributed to complying with the SDC legislation.
- Creation of an administrative appeals procedure, in accordance with the legislation, whereby a citizen or other interested party may challenge any expenditure of SDC revenues.
- Preclusion against challenging the SDC methodology after 60 days from the enactment of or revision to the SDC ordinance or resolution.

F. SDC APPEALS PROCESS

While this methodology report includes a wide assortment of residential and non-residential customer types and assumptions for calculating SDCs, it cannot address all potential development or customer types and system demand levels.

Any party (development applicant) that is subject to SDCs can contend the basis of SDC charges that have been determined using this methodology by submitting evidence, such as a traffic impact study. The independent study must show that the actual impact of the development (using their documented assumptions) is different from the estimated impact (using the SDC methodology). At the election and expense of the applicant, s/he can choose to

conduct such an independent study to estimate changes in demand caused by a proposed development (such as changes in trip generation or water/sewer usage) using methods that follow standard professional engineering practices.

Please refer to the Newport Municipal Code (Chapter 12.15) for more detailed procedures for appealing SDCs, determining SDC credits and other procedures.

G. UPDATING NEWPORT'S SDCS

The City contracted with FCS GROUP to perform a transportation SDC update. FCS GROUP (consultant) has led the development of SDCs throughout Oregon in over 30 cities, and leads SDC training workshops hosted by the Oregon League of Cities. This methodology report using the following general approach:

- ◆ **Framework for Charges.** In this step, consultant and City staff confirmed the approach to be used and the water, wastewater, storm drainage, transportation and parks components to be included in the analysis.
- ◆ **Technical Analysis.** In this step, consultant and City staff identified the recoverable portion of water, wastewater, storm drainage, transportation and parks facility costs and calculated SDC rates.
- ◆ **SDC Meetings and Public Education.** As part of this new SDC update, the City established an SDC Advisory Committee that included a cross-section of community stakeholder groups, including: Newport City Council and Planning Commission representatives; City public works and finance staff; Lincoln County School District; Housing Authority of Lincoln County; and private engineers, architects, lawyers, real estate brokers and construction contractors. This advisory committee met on four separate occasions to provide input to the City and consultant regarding interim SDC assumptions and report recommendations.
- ◆ **Methodology Report Preparation.** In this step, the calculation of the SDC rates are set forth and included in this report.
- ◆ **Jurisdiction Review.** In this step, the consultant compared the calculated SDC to the current fee and with other cities in Oregon. Key findings indicate that Newport's SDCs will continue to be on the low-end of the cost spectrum, with certain SDCs increasing and others decreasing.

The following sections provide detailed SDC calculation methods for each public facility type, including: water, wastewater, stormwater, transportation and parks.

SECTION II: WATER SDCs

This section provides the rationale and calculations supporting the proposed water SDCs.

A. GROWTH CALCULATION

Growth is the denominator in SDC calculation and measured in units that most directly reflect the source of demand. For water SDCs, the most applicable unit of growth is Equivalent Dwelling Units (EDUs). For water, the EDU assumptions and calculations are based on an annual average growth rate of 1.02%, which reflects the forecasted increase in housing units within the City of Newport over the 2015 to 2035 time frame (provided in **Appendix A-1**).

As indicated in **Exhibit 2.1**, there are currently an estimated 4,463 water customers served by the City of Newport, including 3,509 residential customers and 954 non-residential customers. According to Newport water usage statistics, these customers consume approximately 613 million gallons of water, which equates to 54,467 annual gallons per residential customer. Current equivalent dwelling units (EDUs) are calculated based on the total annual water usage divided by the average residential water demand (613,078,000 / 54,467), which equates to 11,256 EDUs. Future EDUs are assumed to increase at annual average growth rate of 1.02%, increasing to 13,792 by year 2037. The projected 20-year EDU growth of 2,536 units results in an average growth share of 18.4%. The average growth share is a measure of total water system demand that will be consumed by future growth and equates to the minimum cost share of any SDC eligible improvement.

Exhibit 2.1

Newport Water Demand and EDU Growth Forecast						
	2017 customers	Usage Per Customer (000 gallons)	Water Usage (000 gallons)			
Residential Customers	3,509	54.5	191,127			
Non-Res. Customers	954	442.3	421,951			
Total or Avg.	4,463	137.4	613,078			
Total System EDUs	Est. 2017	Proj. 2037	EDU Growth 2017-	Avg. Growth Share	AGR	Unit
EDUs (Total Usage / Avg. Res. Demand)	11,256	13,792	2,536	18.4%	1.02%	EDU

Source: City of Newport water customer data (2016); housing unit growth forecasts (Appendix A-1); compiled by FCS GROUP.

*Consumption assumed constant across years.

Abbreviations: EDU = equivalent dwelling unit. AGR = annual average growth rate.

B. IMPROVEMENT FEE COST BASIS

Newport's Water System Master Plan (2008) and neighborhood planning documents provide a detailed CIP with identification of the projects required to meet the growth needs of the City. The portion of each project that can be included in the improvement fee cost basis is determined by the extent to which each new project creates capacity for future users. As indicated in **Exhibit 2.2**, there are 9 water improvement projects that have been identified in local plans and studies that are required

to address 2017-2037 EDU growth in the City of Newport. The total cost of these capital projects is estimated at approximately \$10,731,000 (2017 dollars). The SDC eligible portion of these projects equates to 52% of the total cost or \$5,619,458.

During the study process, the City staff and Advisory Committee identified two public facility improvements that were included in the water master plan but are expected to be implemented outside the 20-year planning horizon. Those projects are also reflected in **Exhibit 2.2** and **Appendix E**, and include the Agate Beach Upper Storage Tank (\$2.26M) and the King Ridge Storage Tank (\$3.29M).

Exhibit 2.2

Water SDC Capital Improvement Plan and Fee Cost Basis (2017 - 2037 time frame)					
Project Number	Description	Total Cost	SDC Eligible Growth	SDC Cost Share	Source Document
			Share %		
W1	12-inch Redundant Bay Crossing, East Option	\$3,028,961	25%	\$757,240	2008 Master Plan
W2	NE 40th and Golf Course Drive Water Line Replacement	\$505,792	25%	\$126,448	2008 Master Plan
W3	US 101 - NE 36th to NE 40th Water Line	\$296,956	50%	\$148,478	2008 Master Plan
W4	US 101 - NE 40th to Circle Way Water Line Replacement	\$660,968	50%	\$330,484	2008 Master Plan
W5	East Newport Water Line Extensions	\$2,721,270	100%	\$2,721,270	2008 Master Plan
W6	Idaho Point Water Line Replacement and Looping	\$745,461	25%	\$186,365	2008 Master Plan
W7	Harborton to SE 50th Water Line Extension	\$312,500	100%	\$312,500	2006 SB Nbhd Plan
W8	SE 50th to SE 62nd Water Line	\$562,500	100%	\$562,500	2006 SB Nbhd Plan
W9	Water Meter Conversion to Touch Read Meters	\$1,896,690	25%	\$474,172	2008 Master Plan
Total		\$10,731,097	52%	\$5,619,458	
Other Planned Improvements Not Included in the SDC Cost Basis*					
W10	Agate Beach Upper Storage Tank 1.0 MG GFS	\$2,259,130	n/a	\$0	2008 Master Plan
W11	King Ridge Storage Tank 1.0 MG GFS	\$3,288,795	n/a	\$0	2008 Master Plan

Source: City of Newport staff input as of 2/28/17, compiled by FCS GROUP. * denotes projects expected to occur beyond 20-years.

D. SDC FUND BALANCE

The City's existing SDC fund balances are deducted from the improvement fee cost basis to determine the adjusted SDC cost basis. **Exhibit 1.1** indicates the total water SDC fund balance (\$346,501) is deducted from the SDC cost basis.

E. COMPLIANCE COST BASIS

ORS 223.307(5) authorizes the expenditure of SDCs on "the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures." The compliance cost estimates includes expenditures such as water system plan updates and methodology updates over the next 20 years. This SDC methodology assumes compliance costs remain consistent with the prior adopted SDC Methodology, which equates to 4.18% of the total SDC cost bases.

F. SDC CALCULATION

As indicated in **Exhibit 2.2**, after deducting current fund balances, the adjusted SDC cost basis includes \$5,272,927 for growth eligible water improvements over 20 years. When this amount is divided by the expected 2,536 increase in water EDUs, it results in an SDC of \$2,079 per EDU for the SDC improvement fee. The 4.33% compliance cost results in an additional \$87/EDU charge, bringing the total water SDC to \$2,166 per EDU (before discounts).

Exhibit 2.2

Water SDC Calculation			
Improvement Fee			
Capacity Expanding CIP	\$	5,619,458	
Less Existing Fund Balance	\$	(346,501)	
SDC Cost Basis	\$	5,272,957	
Growth to End of Planning Period		2,536	EDU
Improvement Fee	\$	2,079	per EDU
Total System Development Charge			
Reimbursement Fee	\$	-	per EDU
Improvement Fee	\$	2,079	per EDU
SDC Subtotal	\$	2,079	per EDU
plus: Administrative	4.18%	\$	87 per EDU
Total SDC before discount	\$	2,166	per EDU

G. WATER SDC ADMINISTRATION PROCEDURES

The SDC established above is based on a cost per EDU or cost per single family detached dwelling. For most residential developments, a plan review must be performed to determine the number of EDUs included in a development.

G.1. Residential SDCs

For residential developments that will result in additional EDUs, this SDC methodology includes a variation in SDCs based on size and type of dwelling unit. Single family detached homes have a wide range in size and water system demand requirements. Analysis of the relative demand generated by various (small, standard, and large) home sizes is included in **Exhibit 2.3**.

Exhibit 2.3: City of Newport, Adjustments by Single Family Home Size			
Type	Small Home (under 1,700 SF)	Standard Home (1,701 to 2,900 SF)	Large Home (over 2,900 SF)
Water	0.63	1.00	1.38
Sewer	0.63	1.00	1.38
Transportation	0.50	0.95	1.47
Stormwater*	0.84	1.00	1.41
Parks	0.47	0.94	1.58

Source: Compiled by FCS GROUP based on Appendix B-1, B-2 and B-3. * Actual stormwater charge may be less or more depending upon construction plans.

Abbreviations: SF = usable floor area (excludes unfinished attics, garages and carports); ADU = accessory dwelling unit.

These factors, when applied to the SDC per EDU for single family homes, results in an SDC charge that varies by home size, and one that can be assessed based on square footage, as indicated in **Exhibit 2.4**. After applying the recommended discount, the resulting SDCs would be \$0.60/SF for the first 1,700 SF; \$0.48/SF for 1,701 to 2,900 SF; and \$0.39/SF for the area above 2,900 SF.

Exhibit 2.4: Prior vs. New SDC Comparisons per Single Family Dwelling				
	Current SDC	New SDC		
		Small Home (1,700 SF or less)	Standard Home (1,701 to 2,900 SF)	Large Home (over 2,900 SF)
New Avg. SDC (without discount)	\$2,413	\$1,354	\$2,166	\$2,978
Water SDC Per Sq.Ft.	n/a	\$1.08	\$0.87	\$0.71
Recommended SDC (FY 2017/18)				
Discount	0%	45%	45%	45%
Water SDC per SF		\$0.60	\$0.48	\$0.39

Source: prior tables.

Using this approach, single family attached structures, such as duplexes and row-houses would be assessed based on the “small home” SDC rate per square foot rate of \$0.60. For residential additions the SDC rate per SF should be charged that corresponds to the proposed increase in usable floor area. For construction of accessory dwelling units (ADUs), SDCs would be charged at the small home rate. Other types of new residential developments, such as apartments, SDCs are to be assessed based on meter size, using the EDU conversion factors shown in **Exhibit 2.5**.

Exhibit 2.5

Meter Size Characteristics		
	Maximum Continuous Flow (gpm)	Flow/SDC EDU Factor
Disc or Compound Meters		
3/4"	15	1.00
1-inch	25	1.67
1 1/2 inch	50	3.33
2-inch	80	5.33
3-inch	160	10.67
4-inch	250	16.67
6-inch	500	33.33
8-inch	800	53.33
Turbine Meters		
4-inch	315	21.00
6-inch	700	46.67
8-inch	1,200	80.00

G.2. Other Non-Residential SDCs

For non-residential developments, water SDCs are to be assessed based on EDUs added using the conversion table provided as **Exhibit 2.5**. When the table does not fit the application well, meter size equivalency factors should be used as indicated in **Exhibit 2.6**. City staff should review the new customer’s land use plans carefully to ensure that the proper meter size is being utilized in the new property.

Exhibit 2.6

Enterprise	EDUs	Units
Apartments	N/A	See meter sizing assessment table
Apparel Store	0.2	Per 1,000 sqft.
Athletic Club	0.3	Per 1,000 sqft.
Auto Care	0.1	Per service bay
Auto Parts Sales	0.2	Per 1,000 sqft.
Auto Sales	0.2	Per 1,000 sqft.
Bank, Drive-in	0.3	Per 1,000 sqft.
Bank, Walk-in	0.3	Per 1,000 sqft.
Building Material and Lumber Store	0.2	Per 1,000 sqft.
Cab Company	0.2	Per 1,000 sqft.
Car Wash, Automated	N/A	See meter sizing assessment table
Car Wash, Self Service	0.7	Per stall
Cemetery	0.2	Per 1,000 sqft.
Church	0.2	Per 1,000 sqft.
Convenience Market (24 hrs.)	0.2	Per 1,000 sqft.
Convenience Market (15-16 hrs.)	0.2	Per 1,000 sqft.
Convenience Market w/ Gasoline Pumps	0.2	Per 1,000 sqft.
Day Care	0.2	Per student
Drinking Establishment	0.7	Per 1,000 sqft.
Furniture Store	0.2	Per 1,000 sqft.
Hardware/Paint	0.2	Per 1,000 sqft.
Health/Fitness Club	0.3	Per 1,000 sqft.
Hospital	1	See meter sizing assessment table
Industrial	1	See meter sizing assessment table
Library	0.2	Per 1,000 sqft.
Lodge/Fraternal	0.3	Per 1,000 sqft.
Manufacturing	0.2	Per 1,000 sqft.
Medical/Dental Office	0.4	Per 1,000 sqft.
Mini-Warehouse Storage and Warehouses	0.1	Per 1,000 sqft.
Mobile Home Park	0.75	Per dwelling unit
Motel/Hotel without kitchenette	0.4	Per room
Motel/Hotel with kitchenette	0.6	Per room
Nursery Garden Center	0.2	Per 1,000 sqft.
Nursing Home	0.3	Per bed
Office Building	0.2	Per 1,000 sqft.
Retail Establishment, Shopping Center, Grocery, Etc.	0.2	Per 1,000 sqft.
Post Office	0.2	Per 1,000 sqft.
Quick Lubrication Vehicle Stop	0.1	Per bay
Recreational Facility, Multipurpose	0.3	Per 1,000 sqft.
Restaurant, any type*	N/A	See meter sizing assessment table
Schools (K through 12)	1	Per 625 gross sqft.
Schools (post secondary)	1	Per 625 gross sqft.
Service Station	0.1	Per bay
Service Station w/Convenience Market	0.1	Per pump
Single Family Detached Housing	1	Per house
Fish Processing Facility	N/A	See meter sizing assessment table
Pools and Aquatic Facilities	N/A	See meter sizing assessment table
Brewery	N/A	See meter sizing assessment table
Movie Theater	0.3	Per 100 seats
Commercial/Coin-op Laundry	N/A	See meter sizing assessment table

* Note, if in mixed-use building with shared water meter, restaurants will also be assessed 1 EDU per 500 SF.

SECTION III: WASTEWATER SDCs

This section provides the rationale and calculations supporting the proposed wastewater SDCs.

A. GROWTH CALCULATION

Growth is the denominator in SDC calculation and measured in units that most directly reflect the source of demand. For wastewater SDCs, the most applicable unit of growth is Equivalent Dwelling Units (EDUs). **It should be noted, that given the difference in customer service area and unique demand profile and supply characteristics (such as wastewater infiltration & inflow) the EDUs for wastewater do not equate to the EDUs for water.** For these reasons, direct comparisons between water and wastewater EDU assumptions should be avoided.

As indicated in **Exhibit 3.1**, there are currently an estimated 3,910 wastewater customers served by the City of Newport, including 3,316 residential customers and 594 non-residential customers. According to Newport water usage statistics, these customers require approximately 559,206 million gallons of wastewater treatment, which equates to 39,556 annual gallons per residential customer. Current equivalent dwelling units (EDUs) are calculated based on the total annual wastewater usage divided by the average residential demand (559,206,000 / 39,556), which equates to 14,137 EDUs.

The EDU assumptions and calculations are based on an annual average growth rate of 1.02%, which reflects the forecasted increase in housing units within the City of Newport over the 2015 to 2035 time frame (provided in **Appendix A-1**).

Future EDUs are assumed to increase to 17,322 by year 2037. The projected 20-year EDU growth of 3,185 units results in an average growth share of 18.4%. The average growth share is a measure of total wastewater system demand that will be consumed by future growth and equates to the minimum cost share of any SDC eligible improvement.

Exhibit 3.1

Newport Wastewater Demand and EDU Forecast						
	2017 customers	Annual Usage Per Customer (000 gallons)	Est. 2017 Water Usage (000 gallons)			
Residential Customers (service connections)	3,316	39.6	131,168			
Non-Res. Customers (commercial)	594	720.6	428,038			
Total or Avg.	3,910	143.0	559,206			
Total System EDUs	Est. 2017	Proj. 2037	Growth 2017-2037	Avg. Growth share	AGR	Customer Unit
EDUs (Total Usage / Avg. Res. Demand)	14,137	17,322	3,185	18.4%	1.02%	EDU

Source: City of Newport wastewater customer data (2016); housing unit growth forecasts (Appendix A-1); compiled by FCS GROUP.

*Consumption assumed constant across years.

Abbreviations: EDU = equivalent dwelling unit. AGR = annual average growth rate.

B. IMPROVEMENT FEE COST BASIS

Newport’s Wastewater System Master Plan (update in process) and neighborhood planning documents provide a detailed CIP with identification of the projects required to meet the growth needs of the City. The portion of each project that can be included in the improvement fee cost basis is determined by the extent to which each new project creates capacity for future users. As indicated in **Exhibit 3.2** and **Appendix E**, there are 13 wastewater improvement projects that have been identified in local plans and studies that are required to address 2017-2037 EDU growth in the City of Newport. The total cost of these capital projects is estimated at approximately \$19,466,700. The SDC eligible portion of these projects equates to 62% of the total cost or \$12,064,320.

During the study process, the City staff and Advisory Committee identified seven public facility improvements that were included in wastewater master plans but are expected to be implemented outside the 20-year planning horizon. Those projects are also reflected in **Exhibit 3.2.**, and include \$9.4 M in capital costs.

Exhibit 3.2

Newport Wastewater SDC Capital Improvement Program and Fee Cost Basis: 2017 to 2037					
Project Number	Description	Total Cost	SDC Eligible Growth Share %	SDC Cost Share	Source Document
WW1	NE Avery Street - Upsize gravity sewer from the Bayfront force main to the Northside pump station	\$1,230,000	5%	\$ 61,500	Draft Master Plan
WW2	NW Nye Street - Upsize and rehabilitate gravity sewer from the Big Creek force main to the Northside pump station	\$1,140,000	11%	\$ 125,400	Draft Master Plan
WW3	Nye Beach pump station - Upgrade capacity to 2.74 mgd	\$2,828,000	10%	\$ 282,800	Draft Master Plan
WW4	Bayfront pump station - Upgrade to 2.59 mgd	\$3,224,000	28%	\$ 902,720	Draft Master Plan
WW5	NE Harney Street gravity sewer	\$740,000	100%	\$ 740,000	1990 Public Facilities Plan
WW7	NE 70th Place gravity sewer	\$371,000	100%	\$ 371,000	1990 Public Facilities Plan
WW9	Benson Road gravity sewer	\$1,722,600	100%	\$ 1,722,600	1990 Public Facilities Plan
WW10	Bayfront pump station - Upgrade force main to 14-inch diameter	\$490,000	28%	\$ 137,200	Draft Master Plan
WW11	Northside pump station - Upgrade capacity to 9.2 mgd	\$2,780,000	100%	\$ 2,780,000	Draft Master Plan
WW14	Harborton to SE 50th Sewer Line Extensions	\$754,800	100%	\$ 754,800	2006 SB Nbhd Plan
WW15	SE 50th to SE 62nd Sewer Line	\$1,979,500	100%	\$ 1,979,500	2006 SB Nbhd Plan
WW16	SE 62nd - Construct new pumpstation	\$1,000,000	100%	\$ 1,000,000	2006 SB Nbhd Plan
WW17	Wilder Phase 5 Sewer Line	\$1,206,800	100%	\$ 1,206,800	2006 SB Nbhd Plan
Total		\$ 19,466,700	62%	\$12,064,320	
Other Planned Improvements Not Included in the SDC Cost Basis*					
WW6	NE 52nd Street gravity sewer	\$259,000	n/a	\$0	1990 Public Facilities Plan
WW8	Yaquina Heights Drive gravity sewer	\$ 1,426,600	n/a	\$0	1990 Public Facilities Plan
WW12	SE Running Springs Drive pump station - Upgrade capacity to 0.27 mgd	\$ 1,178,000	n/a	\$0	Draft Master Plan
WW13	SE Running Springs Drive Upgrade force main to 14-inch diameter	\$ 330,000	n/a	\$0	Draft Master Plan
WW18	Surfland/Airport - Construct new gravity system	\$ 4,620,000	n/a	\$0	Draft Master Plan
WW19	Surfland/Airport - Construct new pump station	\$ 1,000,000	n/a	\$0	Draft Master Plan
WW20	Surfland/Airport - Construct new force main	\$ 612,000	n/a	\$0	Draft Master Plan

Source: City of Newport staff input as of 2/28/17, compiled by FCS GROUP. * denotes projects expected to occur beyond 20-years.

D. SDC FUND BALANCE

The City’s existing SDC fund balances are deducted from the improvement fee cost basis to determine the adjusted SDC cost basis. **Exhibit 1.1** indicates the total water SDC fund balance (\$313,859) is deducted from the SDC cost basis.

E. COMPLIANCE COST BASIS

ORS 223.307(5) authorizes the expenditure of SDCs on “the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.” The compliance cost estimates includes expenditures such as water system plan updates and methodology updates over the next 20 years. This SDC methodology assumes compliance costs remain consistent with the prior adopted SDC Methodology, which equates to 4.18% of the total SDC cost bases.

F. SDC CALCULATION

As indicated in **Exhibit 3.2**, after accounting for the current SDC fund balance, the adjusted SDC cost basis includes \$12,064,320 for growth eligible wastewater improvements over 20 years. When this amount is divided by the expected 3,185 increase in wastewater EDUs, it results in an SDC of \$3,689 per EDU for the SDC improvement fee. The compliance cost results in an additional \$154/EDU charge, bringing the total wastewater SDC to \$3,843 per EDU.

Exhibit 3.2

Wastewater SDC Calculation	
Improvement Fee	
Capacity Expanding CIP	\$ 12,064,320
Less Existing Fund Balance	\$ (313,859)
SDC Cost Basis	\$ 11,750,461
Growth to End of Planning Period	3,185 EDU
Improvement Fee	\$ 3,689 per EDU
Total System Development Charge	
Reimbursement Fee	\$ - per EDU
Improvement Fee	\$ 3,689 per EDU
SDC Subtotal	\$ 3,689 per EDU
plus: Administrative Cost Recovery	4.18% \$ 154 per EDU
Total SDC before discount	\$ 3,843 per EDU

G. WASTEWATER SDC ADMINISTRATION PROCEDURES

The SDC established above is based on a cost per EDU or cost per single family detached dwelling. For most residential developments, a plan review must be performed to determine the number of EDUs a development will require.

G.1. Residential SDCs

For residential developments that will result in additional EDUs, this SDC methodology includes a variation in SDCs based on size and type of dwelling unit. Single family detached homes have a wide range in size and wastewater system demand requirements. Analysis of the relative demand generated by various (small, standard, and large) home sizes is included in **Exhibit 2.3**.

These factors, when applied to the SDC per EDU for single family homes, results in an SDC charge that varies by home size, and one that can be assessed based on square footage, as indicated in **Exhibit 3.3**. After applying the recommended discount, the resulting SDCs would be \$1.06/SF for the first 1,700 SF; \$0.85/SF for 1,701 to 2,900 SF; and \$0.69/SF for the area above 2,900 SF.

Exhibit 3.3: Prior vs. New SDC Comparisons per Single Family Dwelling				
	Current SDC	New SDC		
		Small Home (1,700 SF or less)	Standard Home (1,701 to 2,900 SF)	Large Home (over 2,900 SF)
New Avg. SDC (without discount)	\$3,969	\$2,402	\$3,843	\$5,284
Wastewater SDC Per Sq.Ft.	n/a	\$ 1.92	\$ 1.54	\$ 1.26
Recommended SDC (FY 2017/18)*				
Discount	0%	45%	45%	45%
Wastewater SDC per SF		\$1.06	\$0.85	\$0.69

Source: prior tables.

Using this approach, single family attached structures, such as duplexes and row-houses would be assessed based on the small home SDC rate per square foot rate of \$1.06. For residential additions the SDC rate per SF should be charged that corresponds to the proposed increase in usable floor area.

For construction of accessory dwelling units (ADUs), SDCs would be charged at the small home rate.

For other types of new residential developments, such as apartments, SDCs are to be assessed based on meter size, using the EDU conversion factors shown in **Exhibit 2.5**.

G.2. Other Non-Residential SDCs

For other types of non-residential developments, wastewater SDCs are to be assessed based on EDUs added using the conversion table provided as **Exhibit 2.6**. When a specific land use is not included in Exhibit 2.6, or if the table does not fit the application well, meter size equivalency factors should be used. Staff should review the new customer's land use plans carefully to ensure that the proper meter size is being utilized in the new property.

SECTION IV: STORM DRAINAGE SDCs

This section provides the rationale and calculations supporting the proposed storm drainage (aka. Stormwater) SDCs.

A. GROWTH CALCULATION

Growth is the denominator in SDC calculation and measured in units that most directly reflect the source of demand. For storm drainage SDCs, the most applicable unit of growth is Equivalent Dwelling Units (EDUs). **Given the difference in customer demand profile characteristics the EDUs for stormwater do not equate to the EDUs for water or wastewater.** For these reasons, direct comparisons between stormwater and other EDU assumptions should be avoided.

As indicated in **Exhibit 4.1**, according to the Newport Storm Drain Master Plan (2016), it is expected that 2,280 EDUs will be added over the next 20 years and this change in demand is expected to generate 6,217,560 SF of ISA. The change in future EDUs results in an average SDC growth share of 12%. The average growth share is a measure of total storm drainage system demand that will be consumed by future growth and equates to the minimum cost share of any SDC eligible improvement.

Exhibit 4.1

Newport Storm Drainage Demand and EDU Forecast						
Customer Type	2017	Proj. 2037	2017 to 2037 AGR	Growth 2017-2037	Growth share	Customer Unit
Impervious Surface Area (ISA SF)*	45,693,612	51,911,172	0.64%	6,217,560	12.0%	ISA SF
ISA per EDU	2,727	2,727				
EDUs	16,756	19,036	0.64%	2,280	12.0%	EDUs

Source: City of Newport Storm Drain Master Plan, 2016; compiled by FCS GROUP.

* Reflects total estimated ISA within the City of Newport, including roadways.

Abbreviations: EDU = equivalent dwelling unit. AGR = annual average growth rate. SF = square feet.

B. IMPROVEMENT FEE COST BASIS

Newport's Storm Drain Master Plan and related planning documents provide a detailed CIP with identification of the projects required to meet the growth needs of the City. The portion of each project that can be included in the improvement fee cost basis is determined by the extent to which each new project creates capacity for future users. As indicated in **Exhibit 4.2** and **Appendix E**, there are 8 storm drainage improvement projects that have been identified in local plans and studies that are required to address 2017-2037 EDU growth in the City of Newport. The total cost of these capital projects is estimated at approximately \$3,266,251. The SDC eligible portion of these projects equates to 83% of the total cost or \$2,714,673.

Exhibit 4.2

Newport Stormwater SDC Capital Improvement Program and Fee Cost Basis: 2017 to 2037						
Project Number	Description	Total Cost	SDC Eligible		Source Document	
			Growth Share %	SDC Cost Share		
SD1	525 feet of 24-inch pipe along NE 73rd Street	\$243,075	50%	\$ 121,537	Draft Master Plan	
SD2	124 feet of 30-inch pipe north of NW 60th Street	\$71,442	100%	\$ 71,442	Draft Master Plan	
SD3	270 feet of 12-inch & 18-inch pipe along Lucky Gap Street	\$108,347	41.58%	\$ 45,046	Draft Master Plan	
SD4	655 feet of culverts crossing Yaquina Bay Boulevard	\$221,220	100%	\$ 221,220	Draft Master Plan	
SD5	Install 677 feet of 12, 15, and 24-inch pipe along SW Coho, SW 29th and SW 28th Street	\$679,356	50%	\$ 339,678	Draft Master Plan	
SD6	Drainage ditch development, rehabilitation, and access improvements	\$1,795,182	100%	\$ 1,795,182	Draft Master Plan	
SD7	55 feet of 24-inch culvert crossing SE 35th Street	\$39,385	100%	\$ 39,385	Draft Master Plan	
SD8	170 feet of 36-inch pipe crossing Hwy 101 (Jack & Bore)	\$108,244	75%	\$ 81,183	Draft Master Plan	
Total		\$ 3,266,251	83%	\$ 2,714,673		

Source: City of Newport staff input as of 2/28/17, compiled by FCS GROUP.

D. SDC FUND BALANCE

The City's existing SDC fund balances are deducted from the improvement fee cost basis to determine the adjusted SDC cost basis. **Exhibit 1.1** indicates the total stormwater SDC fund balance (\$141,824) is deducted from the SDC cost basis.

E. COMPLIANCE COST BASIS

ORS 223.307(5) authorizes the expenditure of SDCs on "the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures." The compliance cost estimates includes expenditures such as water system plan updates and methodology updates over the next 20 years. This SDC methodology assumes compliance costs remain consistent with the prior adopted SDC Methodology, which equates to 4.18% of the total SDC cost bases.

F. SDC CALCULATION

As indicated in **Exhibit 4.3**, after deducting the current SDC fund balance, the adjusted SDC cost basis includes \$2,572,849 for growth-eligible storm drainage improvements over 20 years. When this amount is divided by the expected 2,280 increase in EDUs, it results in an SDC of \$1,128 per EDU for the SDC improvement fee. The compliance cost results in an additional \$47/EDU charge, bringing the total stormwater SDC to \$1,176 per EDU. Given the planned increase of 6,217,560 SF in ISA over the next 20 years, the storm drainage SDC equates to \$0.43 per SF of ISA (\$2,572,849 / 6,217,560).

Exhibit 4.3

Storm Drainage SDC Calculation			
Improvement Fee			
Capacity Expanding CIP		\$ 2,714,673	
Less Existing Fund Balance		\$ (141,824)	
SDC Cost Basis		\$ 2,572,849	
Growth to End of Planning Period		2,280	EDU
Improvement Fee		\$ 1,128	per EDU
Total System Development Charge			
Reimbursement Fee		\$ -	per EDU
Improvement Fee		\$ 1,128	per EDU
SDC Subtotal		\$ 1,128	per EDU
plus: Administrative Cost Recovery	4.18%	\$ 47	per EDU
Total SDC per EDU		\$ 1,176	per EDU
Increase in Impervious Surface Area (ISA) sq. ft.		6,217,560	ISA
Total SDC per ISA sq.ft.		\$ 0.43	per ISA SF

G. SDC ADMINISTRATION PROCEDURES

Assessment of the storm drainage SDCs is a relatively simple process since it would be based on the amount of impervious surface area that is added by a new development activity.

G.1. Residential SDCs

For single family development that will result in additional impervious surface area, this SDC methodology includes a variation in SDCs based on size and type of dwelling unit. Single family detached homes have a wide range in size and stormwater system demand requirements. Analysis of the relative demand generated by various (small, standard, and large) home sizes is included in **Exhibit 2.3**.

These factors, when applied to the SDC per EDU for single family homes, results in an average estimated SDC charge that varies by home size, as indicated in **Exhibit 4.4**. Using this approach, single family dwellings (detached and attached housing) would be charged stormwater SDCs based on floor area (which includes ISA assumptions that vary by home size). For construction of accessory dwelling units (ADUs), SDCs would be charged at the small home rate.

Improvements to existing single family homes (includes single family detached and attached structures) which include additional floor area would be assessed based on the floor area added. Improvements to single family homes which do not add livable floor area (such as adding a driveway or sidewalk) would not be assessed the stormwater SDC.

Exhibit 4.4: Prior vs. New SDC Comparisons per Single Family Dwelling				
	Current SDC	New SDC		
		Small Home (1,700 SF or less)	Standard Home (1,701 to 2,900 SF)	Large Home (over 2,900 SF)
Stormwater SDC per Unit (average)	\$857	\$992	\$1,176	\$1,653
Equivalent SDC per Sq.Ft. of floor area*		\$ 0.79	\$ 0.47	\$ 0.39

Source: prior tables.

* Stormwater charge of \$0.43 per SF of ISA would apply for other types of development.

For apartments and other types of non-single family land uses, stormwater SDCs are to be assessed based on net increases in impervious surface area (ISA) which equates to \$0.43.

No discount in stormwater SDCs are recommended at this time.

Example 1: Single Family Lot Improvement. An existing home desires to construct a 500 SF RV parking pad. Since there is no net increase in living area no stormwater SDC would be charged.

Example 2: Single Family Addition. An existing 1,800 SF home desires to construct a 600 SF room addition. Since floor area would increase by 600 SF, the resulting stormwater SDC would be at the “standard home” as follows: of $\$0.47/\text{SF} \times 600 \text{ SF}$ for a total charge of \$282.

Example 3: New Townhomes. A developer proposes to build 4 new townhomes (1,000 SF of floor area per unit) on a vacant lot. The resulting stormwater SDC would be: $4 \text{ units} \times \$992 = \$3,962$.

Example 4: New Apartment Units. A developer proposes to build 40 apartments with 60,000 SF of net new ISA. Results in an SDC charge of $\$0.43/\text{SF} \times 100,000 \text{ SF} = \$25,800$.

G.2. Non-Residential SDCs

It is recommended that all non-residential development be assessed on a unit basis per square foot of net new impervious surface area. Using this method, a site plan for each new development must be reviewed to determine the amount of impervious surface area added. The resulting assessment will be equitable for each case presented to the City for consideration.

Specifically, non-residential development would be assessed at the incremental rate of \$0.43 per square foot of impervious surface area added. Accommodations may be made, on a case-by-case basis, for efforts to mitigate runoff impacts by removal of existing impervious surface or the use of pervious surface materials.

During the study process, it was noted that the City currently does not charge stormwater SDCs for construction projects that add impervious surface area yet do not require a building permit (such as paving a gravel parking lot). It is also observed that while the prior adopted SDC methodology recommends that “accommodations be made, on a case-by-case basis, for efforts to mitigate runoff impacts” such as detention systems, use of pervious surface materials and others. Given these issues, this SDC methodology report recommends:

- Clarification in the definition of “impervious surface area” to include: paved areas as well as compact gravel surface areas. Hence, the resulting SDCs will be determined based on the net change in ISA as defined above.
- Creation of a pervious surface area database for the City of Newport using Geographic Information Systems (GIS). This new GIS layer would be used to determine any net change in ISA resulting from proposed non-single family construction and used to calculate SDCs that result in a net increase in ISA.
- For private construction and maintenance of qualified public facilities that mitigate stormwater runoff, such as detention ponds and the use of pervious surface materials, it is recommended that the city implement a new stormwater utility rate approach that provides a “rate credit” on their monthly bills.

Example 1: Industrial Lot Improvement. An applicant adds 50,000 SF (net new ISA) for a parking/industrial storage area. The resulting stormwater SDC would be $\$0.43 \times 50,000 = \$21,500$.

Example 2: New Office. An applicant adds a 10,000 SF warehouse with 20,000 SF of ISA. The stormwater SDC would be as follows: $\$0.43 \times 20,000 = \$8,600$.

SECTION V: TRANSPORTATION SDCs

This section provides the rationale and calculations supporting the proposed transportation SDCs.

A. GROWTH CALCULATION

Growth is the denominator in the improvement fee calculations, measured in units that most directly reflect the source of demand. For transportation SDCs, the most applicable and administratively feasible unit of growth is trips.

The proposed SDC methodology utilizes an average daily vehicle trip-end (ADT) basis for calculating future trip growth, with no EDU conversion. The recommended approach is one used by practically every jurisdiction in Oregon and is considered to be widely accepted as fair practice since the SDCs are directly tied to the net new vehicle trip generation attributed to a development.

Exhibit 5.1 shows the growth in ADTs during the planning period based on detailed assumptions provided in the Appendix (see Appendix A-2 and A-3). The mix of residential and non-residential land uses within the City of Newport generated approximately 155,952 average daily vehicle trips (in and out) during year 2015. It is expected that future ADTs will grow at 1.02% annually, resulting in 35,860 net new ADT between year 2017 and 2037. This amount of growth results in an SDC growth share of 18.39%. The growth share equates to the minimum cost share of any SDC eligible improvement.

Exhibit 5.1

Newport Transportation Customer Base (average daily vehicle trips)						
	2015 est.	2017 est.	2037 proj.	20-Year Growth Forecast	Growth as a % of Future Customers	Annual Avg. Growth Customer Rate* Unit
Residential Uses	43,476	44,368	54,365	9,997	18.39%	1.02% Vehicle Trip
Non-Res. Uses	112,477	114,786	140,649	25,863	18.39%	1.02% Vehicle Trip
Total	155,952	159,154	195,014	35,860	18.39%	Vehicle Trip

Source: compiled by FCS GROUP based on Appendix A-2 and A-3. * Reflects adopted growth rate for population.

SDCs are to be charged based on Institute of Transportation Engineers (ITE) *Trip Generation Manual* Land Use Classifications using the ITE and local assumptions provided in **Appendix D-1 and D-2**. Given the likelihood of increased use of non-vehicle modes of travel (such as transit, bicycle, and walking trips) within the districts shown in **Appendix F**, this methodology assumes that vehicle trips within these areas will be 20% lower than that realized in other locations due to increased use of transit, walking and bicycle trips. Given increased transit, walking and bicycling dependence by residents in multifamily uses (includes apartments, condominiums and assisted living developments), this methodology assumes that multifamily classifications will generate 25% fewer vehicle trips than what the national ITE assumptions dictate.

B. IMPROVEMENT FEE COST BASIS

Newport's Transportation System Plan and related subarea plans were used to determine the improvement fee cost basis for planned capacity-increasing capital improvements. The portion of

each project that can be included in the improvement fee cost basis is determined by the extent to which each new project creates capacity for future users. As indicated in **Exhibit 5.2** and **Appendix E**, there are 20 street improvements and multiple pedestrian improvements that have been identified in local transportation plans and studies that are required to address 2017-2037 trip growth in the City of Newport. The total cost of these capital projects is estimated at \$32,547,253 (2016 dollars). The SDC eligible portion of these projects equates to 62% of the total cost or \$20,083,567.

During the study process, the City staff and Advisory Committee identified nine improvements that were included in various plans but are expected to be implemented outside the 20-year planning horizon or eligible for state funding (with a local match). Those projects are also reflected in **Exhibit 5.2.**, and include \$42.4 M in capital costs.

Exhibit 5.2

Newport Transportation SDC Capital Improvement Program and Fee Cost Basis, 2017 to 2037					
Project Number	Description	Total Cost	SDC Eligible Growth Share %	SDC Cost Share	Source Document
1	US 101 at 73rd Street - Traffic Signal	\$527,599	50%	\$263,800	SDC Methodology
2	Extend Biggs Street to NW 60th and Improve 60th to US 101	\$197,850	50%	\$98,925	SDC Methodology
3	Reconstruct NE 60th/Biggs btwn Hazel Ct and 60th	\$104,434	50%	\$52,217	SDC Methodology/TSP
4	NE 57th Street Area Improvements	\$299,970	50%	\$149,985	SDC Methodology/TSP
5	NW 56th Street Area Improvements	\$707,410	50%	\$353,705	SDC Methodology/TSP
7	US 101 at 36th Street - Traffic Signal	\$659,500	50%	\$329,750	SDC Methodology
10	NE Harney Street - 7th to NE 32nd Street	\$9,232,991	42%	\$3,877,856	SDC Methodology
12	Extend NE 6th Street to Newport Hts Road	\$1,866,480	75%	\$1,399,860	SDC Methodology/TSP
13	NE Harney Street - US 20 to 3rd Street	\$915,464	20%	\$183,093	SDC Methodology/TSP
16	US 101 at US 20 - Signal revisions realign Olive	\$1,244,320	20%	\$248,864	SDC Methodology/TSP
17	Sidewalk Along NW 6th street - Coast to Nye Street (both sides)	\$203,313	50%	\$101,657	SDC Methodology/TSP
19	US 101 at Hurbert - Widen street to provide left turn	\$267,649	100%	\$267,649	SDC Methodology
20	Extend SW Abbey to Elizabeth Street	\$156,651	75%	\$117,488	SDC Methodology/TSP
21	US 101 at Abbey - Traffic Signal	\$356,866	50%	\$178,433	SDC Methodology
22	Sidewalk Along Elizabeth Street - 2nd to Gov't (west side)	\$161,095	50%	\$80,548	SDC Methodology/TSP
24	Moore Road at SE Bay Blvd realignment and channelization	\$395,699	18.39%	\$72,764	SDC Methodology
26	Ash Street at SE 40th Street, extend to approx. 1,200-feet south	\$1,636,503	100%	\$1,636,503	TSP
27	Complete Harborton to SE 50th Street loop	\$3,760,000	100%	\$3,760,000	2006 SB Nhbhd Plan
28	New SE 50th Street Segment - Existing road to SB State Park Entrance	\$1,738,715	50%	\$869,358	TSP
29	New Road from SE 50th Street to SE 62nd Street at US 101	\$5,573,887	100%	\$5,573,887	TSP
30	Sidewalk Improvements in Key Pedestrian Areas 2	\$2,540,857	18.39%	\$467,228	TSP
Total		\$32,547,253	62%	\$20,083,567	
Other Planned Improvements Not Included in the SDC Cost Basis*					
6	SE 50th to SE 62nd Sewer Line	\$14,443,000	n/a	\$0	SDC Methodology/TSP
8	Extend NW Nye Street to Oceanview Drive	\$791,400	n/a	\$0	SDC Methodology
9	Sidewalk/Bikeway along Big Creek Road - 12th to Harney/sidewalk on 12th	\$227,755	n/a	\$0	SDC Methodology/TSP
11	Bike lanes on Eads Street - NE 12th to NE 3rd and NE 3rd	\$161,095	n/a	\$0	SDC Methodology/TSP
14	Reconstruct NE 3rd Street btwn Eads and Harney	\$269,973	n/a	\$0	SDC Methodology/TSP
15	US 20 widen to five lanes US 101 to Moore Drive	\$6,594,993	n/a	\$0	SDC Methodology
18	US 101 at Angle - Traffic Signal	\$527,599	n/a	\$0	SDC Methodology
23	Connect SE 1st Street btwn Douglas and Fogarty	\$329,749	n/a	\$0	SDC Methodology
25	US 101 widen to five lanes bridge to SE 123rd	\$19,074,463	n/a	\$0	SDC Methodology

Source: City of Newport staff input as of 2/28/17, compiled by FCS GROUP. Note, project 30 sidewalk improvements are identified in Appendix C.

C. SDC FUND BALANCE

The City’s existing SDC fund balances are deducted from the improvement fee cost basis to determine the adjusted SDC cost basis. **Exhibit 1.1** indicates the total transportation SDC fund balance (\$262,381) is deducted from the SDC cost basis.

E. COMPLIANCE COST BASIS

ORS 223.307(5) authorizes the expenditure of SDCs on “the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.” The compliance cost estimates includes expenditures such as water system plan updates and methodology updates over the next 20 years. This SDC methodology assumes compliance costs remain consistent with the prior adopted SDC Methodology, which equates to 4.18% of the total SDC cost bases.

F. SDC CALCULATION

As indicated in **Exhibit 5.3**, after deducting the SDC fund balance, the adjusted SDC cost basis includes \$19,821,186 for growth-eligible transportation improvements over 20 years. When this amount is divided by the expected 35,860 increase in ADTs, it results in an SDC of \$553 per vehicle trip for the SDC improvement fee. The compliance cost results in an additional \$23/ADT charge, bringing the total transportation SDC to \$576 per vehicle trip.

Given the average increase of 9.45 vehicle trips per new single family detached dwelling unit (per ITE trip generation rates provided in Appendix D), the transportation SDC for an “average” or standard single family home would be \$5,440 (before discounts or credits).

Exhibit 5.3

Transportation SDC Calculation		
Improvement Fee		
Capacity Expanding CIP	\$ 20,083,567	
Less Existing Fund Balance	\$ (262,381)	
SDC Cost Basis	\$ 19,821,186	
Growth to End of Planning Period	35,860	Vehicle Trip
Improvement Fee	\$ 553	per Vehicle Trip
Total System Development Charge		
Reimbursement Fee	\$ -	per Vehicle Trip
Improvement Fee	\$ 553	per Vehicle Trip
SDC Subtotal	\$ 553	per Vehicle Trip
plus: Administrative Cost Recovery	4.18% \$ 23	per Vehicle Trip
Total SDC per Vehicle Trip	\$ 575.84	per Vehicle Trip
Total SDC per Vehicle Trip (before discount)	\$ 575.84	
Total SDC per Vehicle Trip (after discount)	\$ 316.71	discount 0.45
Increase in Vehicle Trips per Single Family Dwelling Unit	9.45	
Total SDC per Single Family Dwelling Unit (before discount)	\$ 5,440	
Total SDC per single family dwelling unit (after discount)	\$ 2,992	discount 0.45

G. SDC ADMINISTRATION PROCEDURES

Assessment of the transportation SDCs should be based on average daily person trips added to the transportation system.

G.1. Residential SDCs

For single family development that will result in additional vehicle trips, this SDC methodology includes a variation in SDCs based on size and type of dwelling unit. Single family detached homes have a wide range in size and system demand requirements. Analysis of the relative demand generated by various (small, standard, and large) home sizes is included in **Exhibit 2.3**.

These factors, when applied to the average SDC per EDU for single family homes, results in an SDC charge that varies by home size; and one that can be assessed based on square footage of net new floor area, as indicated in **Exhibit 5.4**. After applying the recommended discount, the resulting SDCs for new single family homes would be: \$1.20/SF for the first 1,700 SF; \$1.14/SF for 1,701 to 2,900 SF; and \$1.05/SF for the area above 2,900 SF.

The choice of assessment methods for new single family homes is to be based on the size of the unit added. For additions to existing development and accessory dwelling units, the SDC is to be assessed based on square footage of usable floor area added.

For other types of new residential developments, such as duplexes or apartments, SDCs are to be charged based on Institute of Transportation Engineers (ITE) *Trip Generation Manual* Land Use Classifications for dwelling types (e.g., single family detached, townhomes, apartments), which are provided in **Appendix D-1 and D-2**.

Exhibit 5.4: Prior vs. New SDC Comparisons per Single Family Dwelling				
	Current SDC	New SDC		
		Small Home (1,700 SF or less)	Standard Home (1,701 to 2,900 SF)	Large Home (over 2,900 SF)
Avg. SDC (without discount)				
Transportation SDC per Unit	\$11,120	\$2,738	\$5,165	\$7,988
Transportation SDC per floor area (Sq.Ft.)	n/a	\$2.19	\$2.07	\$1.90
Transportation SDC per ADVT	n/a	\$575.84	\$575.84	\$575.84
Recommended SDC (FY 2017/18 after discount)*				
Discount	90%	45%	45%	45%
Transportation SDC per Unit (average)	\$1,112	\$1,506.02	\$2,840.81	\$4,393.37
Transportation SDC per floor area (Sq.Ft.)	n/a	\$1.20	\$1.14	\$1.05
Transportation SDC per ADVT	n/a	\$316.71	\$316.71	\$316.71

* assumes SDC discount equates to difference between current SDC and new avg. SDC.

Source: prior tables.

For construction of accessory dwelling units (ADUs), SDCs would be charged at the small home rate.

G.2. Non-Residential SDCs

It is recommended that all non-residential development be assessed on the trip generation rates per unit of new development using the land use table provided in **Appendix D-1 and D-2**. Using this method, a site plan for each new development must be reviewed to determine the amount of net new trips added. The resulting assessment will be equitable for each case presented to the City for consideration.

Specifically, non-residential development would be assessed during the first year of SDC implementation at the incremental rate of \$115.17 per net new average daily vehicle trip using the adjusted trip rates shown in Appendix D-1 and D-2.

Based on the adjusted trip rates assumed for the land use categories shown in Appendix D-1 and D-2, number of units within the development, the SDC rate per trip, the calculation used to arrive at the total SDC for the development uses the equation below.

$$\begin{aligned} & \text{Net New Adjusted ADVTs per Unit of Development} \times \text{Units of Development} \\ & \times \text{TSDC rate per ADVT} = \text{Total SDC} \end{aligned}$$

For developments not listed in Appendix D-1 and D-2, the City SDC administrator will estimate SDCs based on estimated units of development and adjusted ADVTs. **Any development applicant that is subject to SDCs can contend the basis of SDC charges that have been determined by submitting an independent traffic impact study. The study must show that the actual impact of the development (using their documented assumptions) is different from the estimated impact (using the SDC methodology). At the election and expense of the applicant, s/he can choose to conduct such an independent study to estimate changes in average daily vehicle trips caused by a proposed development using methods that follow standard professional engineering practices.**

SECTION VI: PARKS SDCs

This section provides the rationale and calculations supporting the proposed parks SDCs.

A. GROWTH CALCULATION

Growth is the denominator in SDC calculation and measured in units that most directly reflect the source of demand. For parks SDCs, the most applicable unit of growth is the combination of housing and lodging units (customer units).

As indicated in **Exhibit 6.1**, there are currently an estimated 7,551 customer units served by the City of Newport, including 5,869 housing units and 1,682 lodging units.

Customer unit growth over the next 20 years is expected to equate to 1.02% annually. This results in an increase of 1,149 customer units over the next 20-years, and results in an average SDC growth share of 13.21%. The average growth share is a measure of total parks system demand that will be consumed by future growth and equates to the minimum cost share of any SDC eligible improvement.

Exhibit 6.1

	2015 est.	2017 est.	2037 proj.	Growth 2017-2037	Growth as % of Future Customers	Annual Avg. Growth Customer Rate* Unit
Housing Units	5,751	5,869	6,639	770		1.02% Units
Lodging Units	n/a	1,682	2,061	379		1.02% Units
Resident & Lodging Units		7,551	8,700	1,149	13.21%	Units

Source: Compiled by FCS based on housing unit estimates and growth forecasts in Appendix A-1; and City of Newport (2017 lodging room count).

B. IMPROVEMENT FEE COST BASIS

Newport's Parks Master Plan, subarea planning documents and stakeholder input during the SDC update process, were used to provide a detailed CIP with identification of the projects required to meet the growth needs of the City. The portion of each project that can be included in the improvement fee cost basis is determined by the extent to which each new project creates capacity for future users. As indicated in **Exhibit 6.2** and **Appendix E**, there are 15 park improvement projects that have been identified and are required to address 2017-2037 growth in the City of Newport. The total cost of these capital projects is estimated at approximately \$6,168,913. The SDC eligible portion of these projects equates to 46% of the total cost or \$2,826,670.

Exhibit 6.2

Newport Parks SDC Capital Improvement Program and Fee Cost Basis, 2017 to 2037					
Project Number	Description	Total Cost	Eligible Growth Share %	SDC Cost Share	Source Document
P1	West Agate Beach Park Development	\$551,973	25%	\$ 137,993	Newport SDC update
P2	Sam Moore Park Upgrade	\$364,780	25%	\$ 91,195	Newport SDC update
P3	Big Creek Reservoir Trail Development	\$270,890	100%	\$ 270,890	Newport SDC update
P4	Frank Wade Park Upgrades	\$340,371	13.21%	\$ 44,963	Newport SDC update
P5	Sport Complex Design	\$26,381	50%	\$ 13,190	Newport SDC update
P6	Sport Complex Construction	\$1,318,999	50%	\$ 659,500	Newport SDC update
P7	Ocean-to-Bay Trail Acquisition	\$131,900	50%	\$ 65,950	Newport SDC update
P8	Ocean-to-Bay Trail Development	\$329,749	50%	\$ 164,875	Newport SDC update
P9	South Beach Trail Acquisition*	\$416,715	50%	\$ 208,358	Newport SDC update
P10	South Beach Trail Development	\$461,649	50%	\$ 230,825	Newport SDC update
P11	Southeast 40th Street Area Park Acquisition**	\$469,990	50%	\$ 234,995	Newport SDC update
P12	Big Creek Park Upgrades and Expansion	\$581,187	50%	\$ 290,594	Newport SDC update
P13	Mombetsu Park Upgrade	\$105,520	13.21%	\$ 13,939	Newport SDC update
P14	Yaquina Bay Bridge Park Improvements	\$584,386	50%	\$ 292,193	Newport SDC update
P15	Coastal Gully Open Space	\$214,423	50%	\$ 107,212	Newport SDC update
Total		\$6,168,913	46%	\$ 2,826,670	

Source: City of Newport staff input as of 2/28/17, compiled by FCS GROUP.

* Partial expenditure. Purchased Guin Open Space for \$23,000 in 2012

** Reduced to Account for Wilder Twin Park Acquisition (Res No 3523)

D. SDC FUND BALANCE

The City's existing SDC fund balances are deducted from the improvement fee cost basis to determine the adjusted SDC cost basis. **Exhibit 1.1** indicates the total parks SDC fund balance (\$141,824) is deducted from the SDC cost basis.

E. COMPLIANCE COST BASIS

ORS 223.307(5) authorizes the expenditure of SDCs on "the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures." The compliance cost estimates includes expenditures such as water system plan updates and methodology updates over the next 20 years. This SDC methodology assumes compliance costs remain consistent with the prior adopted SDC Methodology, which equates to 4.18% of the total SDC cost bases.

F. SDC CALCULATION

As indicated in **Exhibit 4.3**, the adjusted SDC cost basis includes \$2,659,465 for growth-eligible parks improvements over 20 years. When this amount is divided by the expected 1,149 increase in customer units, it results in an SDC of \$2,414 per customer unit for the SDC improvement fee. The compliance cost results in an additional \$97/unit charge, bringing the total parks SDC to \$2,411 per EDU (before discount is applied).

Exhibit 6.3

Parks SDC Calculation (before discounts or credits)	
Improvement Fee	
Capacity Expanding CIP	\$ 2,826,670
Less Existing Fund Balance	\$ (167,205)
SDC Cost Basis	\$ 2,659,465
Growth to End of Planning Period	1,149 Units
Improvement Fee	\$ 2,314 per Units
Total System Development Charge	
Reimbursement Fee	\$ - per Units
Improvement Fee	\$ 2,314 per Units
SDC Subtotal	\$ 2,314 per Units
plus: Administrative Cost Recovery	4.18% \$ 97 per Units
Total SDC per Units	\$ 2,411 per Units
Total SDC per Unit (before discount)	\$ 2,411
Total SDC per Unit (after discount)	\$ 1,085 w/45% discount

The recommended parks SDC discount of 45% is similar to Newport’s current SDC policy. Also, the ability to utilize SDC funding (after discounts) to leverage other local funding, state grants or other funding appears feasible at this time.

G. SDC ADMINISTRATION PROCEDURES

Assessment of the parks SDCs is a relatively simple process as indicated below.

G.1. Residential SDCs

For new single family developments, this SDC methodology includes a variation in SDCs based on size and type of dwelling unit. Single family detached homes have a wide range in size and parks system demand requirements. Analysis of the relative demand generated by various (small, standard, and large) home sizes is included in **Exhibit 2.3**.

These factors, when applied to the average parks SDC per standard size single family homes, results in an SDC charge that varies by home size, as indicated in **Exhibit 6.4**. After accounting for the recommended discount, the resulting parks SDC would range from \$512 to \$1,719 for a single family home.

Using this approach, single family attached structures, such as duplexes and row-houses would be assessed based on the “small home” SDC rate. Hence, a duplex would be assessed as follows: (2 units x \$512 per unit).

For other types of residential developments, such as apartments, SDCs are to be assessed based on the small home rate (after discounts) multiplied by an EDU conversion factor of 0.75. Therefore, a 60 unit apartment would be assessed parks SDCs as follows (60 x .75 x \$512).

For accessory dwelling units, it is recommended that parks SDCs are to be assessed based on the small home rate (after discounts).

Exhibit 6.4: Prior vs. New SDC Comparisons per Single Family Dwelling				
	Current SDC	New SDC		
		Small Home (1,700 SF or less)	Standard Home (1,701 to 2,900 SF)	Large Home (over 2,900 SF)
Avg. SDC (without discount)				
Parks SDC per Unit	\$5,286	\$1,137	\$2,274	\$3,821
Parks SDC per floor area (Sq.Ft.)	n/a	\$0.91	\$0.91	\$0.91
Recommended SDC (FY 2017/18)*				
Discount	50%	45%	45%	45%
Parks SDC per Unit (average)	\$2,643	\$512	\$1,023	\$1,719
Parks SDC per floor area (Sq.Ft.)	n/a	\$0.50	\$0.50	\$0.50

* assumes SDC discount equates to difference between current SDC and new avg. SDC.

Source: prior tables.

G.2. Non-Residential SDCs

For lodging developments, it is recommended that the parks SDC be charged on a per unit basis that is consistent with the small home rate (after discount) of \$512 per unit multiplied by an EDU conversion factor of 0.5 (\$512 x 50%). Therefore, a new hotel with 100 rooms would be assessed 50 EDUs at the small home rate when calculating a parks SDC (100 x 0.5 x \$512).

It is recommended that all other non-residential development (excluding lodging units) be exempt from the parks SDC.

It should be noted that the conversion of residential dwellings to vacation rental dwellings or (VRDs) is not expected to create an increase in parks demand, and would be exempt from the parks SDC.

SECTION VII: SUMMARY

This section provides additional information comparing current SDCs with proposed SDCs for residential and non-residential developments in the City of Newport.

A. RESIDENTIAL SDCS

This SDC methodology report includes recommendations for revising Newport's maximum defensible SDCs, as well as recommendations for year 1 SDCs after applying discounts for parks and transportation.

The resulting total (average) SDCs per typical single family home in Newport are shown in **Exhibit 7.1**. As noted, the recommended SDC for an average single family home would be approximately \$8,799, down 20% from the current SDC amount of \$10,994.

Exhibit 7.1

City of Newport, Current vs. Proposed SDCs, Average Single Family Rates before Adjustments for Unit Size			
Facility Type	Current SDC (after discounts)	New Avg. SDC (before discounts)	New FY 2017/18 SDC (average after discounts) Notes
Water	\$2,413	\$2,166	\$1,191 Assumes 45% discount
Sewer	\$3,969	\$3,843	\$2,114 Assumes 45% discount
Transportation	\$1,112	\$5,440	\$2,992 Assumes 45% discount
Stormwater	\$857	\$1,176	\$1,176 Current charge of \$0.32/SF would go to \$0.43/SF ISA
Parks	\$2,643	\$2,411	\$1,326 Assumes 45% discount
Total	\$10,994	\$15,036	\$8,799

Source: Compiled by FCS GROUP based on prior tables.

Abbreviations: GPD - gallons used per day; ISA - square feet of impervious surface area.

The recommended level of discounts included in this SDC methodology are shown in **Exhibit 7.2**

Exhibit 7.2

SDC Charge Summary, Single Family Rates, After Discounts (Average)						
Facility Type	Reimburse-ment Fee	Improvement Fee	Compliance Fee	Total SDC	Discounts	
Water	\$ -	\$ 1,144	\$ 48	\$ 1,191	45%	
Sewer	\$ -	\$ 2,029	\$ 85	\$ 2,114	45%	
Transportation	\$ -	\$ 2,872	\$ 120	\$ 2,992	45%	
Stormwater	\$ -	\$ 1,128	\$ 47	\$ 1,176	0%	
Parks	\$ -	\$ 1,273	\$ 53	\$ 1,326	45%	
Total				\$ 8,799		

Source: Compiled by FCS GROUP. Abbreviations: GPD - gallons used per day; ISA - square feet of impervious surface area. ADVT = avg. daily vehicle trip.

As noted, this SDC methodology report recommends varying the SDC by single family dwelling unit size since size has been found to have a bearing on system demand. Using the examples provided in **Exhibit 7.3**, the resulting SDCs would range from: \$5,189 for a 1,250 SF dwelling; \$9,800 for a

2,500 SF dwelling; and \$15,100 for a 4,200 SF dwelling. In comparison, the existing SDCs in Newport are currently \$10,994 per dwelling unit, regardless of its size.

Under the new SDC methodology, single family attached dwellings such as duplexes and row houses would be charged the “small home” dwelling unit SDC rates.

Under the new SDC methodology, apartments and other types of non-exempt residential developments not listed above would be charged based on net new floor area constructed, using the SDC unit costs shown in **Exhibit 7.3**.

Construction of accessory dwelling units (ADUs) would be charged at the square foot rate that corresponds with the small home size.

Construction of additions to single family dwellings that result in net increases in usable floor area would be charged at the square foot rate that corresponds to home size.

Exhibit 7.3

Current vs. New SDC Comparisons per Single Family Home (with floor area sq.ft. rates)			New SDCs After Discounts*		
Facility Type	Current SDC (after discounts)	Current SDC with NO Discounts	SDC: Small Home (less than 1,700 SF)	SDC: Standard Home (1,701 to 2,900 SF)	SDC: Large Home (over 2,900 SF)
Water	\$2,413	\$2,413	\$0.60	\$0.48	\$0.39
Sewer	\$3,969	\$3,969	\$1.06	\$0.85	\$0.69
Transportation	\$1,112	\$11,120	\$1.20	\$1.14	\$1.05
Stormwater*	\$857	\$857	\$0.79	\$0.47	\$0.39
Parks	\$2,643	\$5,286	\$0.50	\$0.50	\$0.50
Total Per SFD		\$23,645	\$4.15	\$3.43	\$3.02
Total Per SFD	\$10,994		\$5,189	\$9,800	\$15,100
Home Size in Example (SF)			1,250	2,500	4,200

Source: Compiled by FCS GROUP based on prior tables. * see discount table assumptions.

Abbreviations: SF = usable floor area (excludes unfinished attics, garages and carports).

Examples²

Example 1: construction of a 2,500 SF home. Results in an SDC charge of \$4.15 for the first 1,700 SF (\$7,055) plus 800 SF charged at \$3.43/SF (\$2,744) for a total SDC charge of approximately \$9,800.

Example 2: construction of a 4,200 SF home. Results in an SDC charge of \$4.15 for the first 1,700 SF (\$5,189), the next 1,200 SF is charged at \$3.43/SF (\$4,116), and the remaining 1,300 SF is charged \$3.02/SF (\$3,926) for a total SDC charge of approximately \$13,231.

Example 3: Accessory Dwellings. An existing home desires to construct a 600 SF accessory dwelling unit. Results in an SDC charge of \$4.15/SF x 600 SF for a total charge of \$2,490.

Example 4: Home Additions. An existing 1,200 SF home desires to construct a 500 SF addition. Results in an SDC charge of \$4.15/SF x 500 SF for a total charge of \$2,075. If the same house wants a 1,000 SF addition, the SDC charge would be (\$4.15 x 500 SF) + (\$3.43 x 500 SF) = \$3,790.

²² Note, these figures may not add up exactly to the amounts shown in Exhibits due to rounding.

B. NON-RESIDENTIAL SDCS

In light of the city’s desire to maintain a competitive cost environment for attracting private apartment and restaurant development and public investment, three development prototypes were evaluated. The following tables provide a comparison of the current SDCs with the proposed SDCs for 2,500 SF restaurant, a 60-unit apartment, and a 10,000 square foot school addition under two options. The SDC options reflect the maximum defensible SDC amount and the recommended SDC amount after discounts are applied. Option A shows the proposed SDCs after discounts are applied to transportation and parks elements. Option B indicates a maximum defensible SDC amount based on the new SDC methodology contained in this report.

Restaurant Example

Exhibit 7.4 reflects that current restaurant SDC assumptions vs. future SDCs. The findings indicate that the current SDCs would result in a total estimated SDC of \$94,665 for a 2,500 square foot restaurant (after discounts). The proposed Option A (after discounts but before credits) would result in an estimated total SDC of \$35,998 inside designated special districts and \$41,924 for other areas in the city.

If the discounts are excluded, the maximum defensible SDC for restaurants under a new methodology that is based on EDU conversion rates and no discounts is estimated at \$75,181.

It should be noted, that this SDC study examined other methods that considered a higher SDC adjustment for restaurants based on their wastewater discharge and level of treatment required. The results indicate that such an approach may be justified based on the effluent discharge levels. However, the resulting SDCs would likely be on par or higher than the current SDC amounts. Hence, such an approach is not being recommended at this time. Instead, it is recommended that the costs of wastewater treatment be recouped through the city’s utility rate structure.

Exhibit 7.4

Newport, Current vs. New SDC Comparisons Restaurant (2,500 SF)			
Facility Type/Location	Current SDC (after discounts) Notes	Option A. New SDCs w/ Meter Size Approach, after discounts* Notes	Option B. Max Defensible SDCs (without discounts or special districts) Notes
Water	\$24,130 4 EDUs x 2.5 x \$2,413	\$3,971 1.5" m (3.33 x \$2,166 x .55)	\$7,220 1.5" m (3.33 x \$2,166)
Sewer	\$39,690 4 EDUs x 2.5 x \$3,969	\$7,046 1.5" m (3.33 x \$3,843 x .55)	\$12,810 1.5" m (3.33 x \$3,843)
Transportation	\$29,885 10.75 x 2.5 x \$1,112		\$53,870 37.42 ADVT x 2.5 x \$575.84
Special Districts**		\$23,700 29.93 ADVT x 2.5 x \$575.84 x .55	
Rest of City		\$29,625 37.42 ADVT x 2.5 x \$575.84 x .55	
Stormwater (3k ISA)	\$960 3,000 ISA x \$0.32	\$1,281 3,000 ISA x \$0.43	\$1,281 3,000 ISA x \$0.43
Parks	\$0 n/a	\$0 n/a	\$0 n/a
Total in Special Districts	\$94,665	\$35,998	\$75,181
Total in Rest of City	\$94,665	\$41,924	\$75,181

Source: Compiled by FCS GROUP based on prior tables. * Stormwater charge may be less or more depending upon construction plans. ** Assumes development occurs within Historic Downtown area, Nye Beach area, Deco District area, or Wilder (South Beach) area.

Abbreviations: SF = usable floor area (excludes unfinished attics, garages and carports)

ISA = impervious surface area. K ISA = 1000 square feet of impervious surface area.

Apartment Example

Exhibit 7.5 reflects that current apartment SDC assumptions vs. future SDCs. The findings indicate that the current SDCs would result in a total estimated SDC of \$264,379 for a 60-unit apartment (after discounts but before credits). The proposed Option A would result in an estimated total SDC of approximately \$198,751.

If the discounts and EDU factors are excluded, the maximum defensible SDC for restaurants under a new methodology that is based on EDU conversion rates and no discounts for transportation or parks is estimated at approximately \$399,619.

Exhibit 7.5

Newport, Current vs. New SDC Comparisons Apartment (60 units)			
Type	Current SDC: Meter Size Method (after discounts) Notes	Option A. New SDCs w/ Meter Size Approach, after discounts* Notes	Option B. Max Defensible SDCs (without discounts) Notes
Water	\$25,739 3" m (10.67 x \$2,143)	\$12,707 3" m (10.67 x \$2,166 x .55)	\$23,104 3" m (10.67 x \$2,166)
Sewer	\$42,336 3" m (10.67 x \$3,969)	\$22,546 3" m (10.67 x \$3,843 x .55)	\$40,993 3" m (10.67 x \$3,843)
Transportation	\$45,370 60 EDUs x .68 x \$1,112	\$92,638 4.88 ADVT x 60 x \$575.84 x .55	\$224,576 6.5 ADVT x 60 x \$575.84
Stormwater (100k ISA)	\$32,000 100,000 ISA x \$0.32	\$42,714 100,000 ISA x \$0.43	\$42,714 100,000 ISA x \$0.43
Parks	\$118,935 60 EDUs x .75 x \$2,643	\$28,145 60 DUs x 0.75 x \$1,137 x .55	\$68,231 60 DUs x \$1,137
Total	\$264,379	\$198,751	\$399,619

Source: Compiled by FCS GROUP based on prior tables and Appendix D. * Stormwater charge may be less or more depending upon construction plans. ** See discount table assumptions.

Abbreviations: SF = usable floor area (excludes unfinished attics, garages and carports)

ISA = impervious surface area.

Primary School Addition Example

Exhibit 7.6 reflects that current school addition SDC assumptions vs. future SDCs. The findings indicate that the current SDCs would result in a total estimated SDC of \$263,305 for a 10,000 square foot addition (before credits). The proposed Option A, would result in an estimated total SDC of \$81,850. Note, the primary difference in the two methods is that the new proposed method uses a revised EDU conversion assumption that results in fewer EDUs than with the current method.

If the discounts are excluded, the maximum defensible SDC for the school addition under a new methodology that is based on EDU conversion rates and no discounts for transportation or parks is estimated at \$143,577.

Exhibit 7.6

Newport, Current vs. New SDC Comparisons Primary School Addition (10,000 Sf)			
Facility Type	Current SDC (after discounts) Notes	Option A. New Draft SDCs w/ Meter Size Approach and New EDU Assumptions after discounts* Notes	Option B. Max Defensible SDCs (current EDU assumptions and no discounts) Notes
Water	\$96,520 40 EDUs x \$2,413	\$19,061 16 EDUs x \$2,166 x .55	\$34,656 16 EDUs x \$2,166
Sewer	\$158,760 40 EDUs x \$3,969	\$33,819 16 EDUs x \$3,843 x .55	\$61,490 16 EDUs x \$3,843
Transportation	\$3,225 10 EDUs x .29 x \$1,112	\$22,563 7.12 ADVT x10 x \$575.84 x .55	\$41,023 7.12 ADVT x10 x \$575.84
Stormwater (15k ISA)	\$4,800 15,000 ISA x \$0.32	\$6,407 15,000 ISA x \$0.43	\$6,407 15,000 ISA x \$0.43
Parks	\$0	\$0	\$0
Total	\$263,305	\$81,850	\$143,577

Source: Compiled by FCS GROUP based on prior tables. * School EDU conversion assumes 1 EDU per 625 SF of floor area (vs. 179 feet currently). ** See discount table assumptions.

Abbreviations: SF = usable floor area (excludes unfinished attics, garages and carports)

ISA = impervious surface area.

C. COMPARISON WITH OTHER CITIES

The following **Exhibit 7.7** provides a comparison of the current SDCs with the proposed SDCs for single family dwelling units in selected cities. As noted, Newport is currently on the low-end of the range for SDC charges for cities in Oregon, with a total estimate of \$10,994 per dwelling unit.

With this new SDC methodology, the average SDC in Newport would be \$8,799.

However, if we apply the recommended discounts for parks and transportation, and adjust the SDC by dwelling unit size, the resulting total estimated SDCs for Newport would range from:

- Small Home (1,700 SF): \$5,189
- Standard Home (2,500 SF): \$9,800
- Large Home (4,200 SF): \$15,100

Exhibit 7.7

SDC Comparison per Single Family Detached Home						
City	Transportation	Parks	Storm	Sewer	Water	Total
Milwaukie	\$1,921	\$3,985	\$845	\$1,075	\$1,788	\$9,614
Saint Helens	\$2,383	\$1,362	\$709	\$3,738	\$2,511	\$10,703
Newport (current)	\$1,112	\$2,643	\$857	\$3,969	\$2,413	\$10,994
Lincoln City	\$718	\$2,066	\$409	\$5,822	\$2,044	\$11,059
Lebanon	\$1,773	\$3,247	\$213	\$3,894	\$2,330	\$11,457
Ashland	\$2,044	\$1,041	\$461	\$1,750	\$7,398	\$12,693
Hood River	\$1,835	\$3,072	\$662	\$1,902	\$5,919	\$13,390
Cottage Grove	\$1,794	\$2,031	\$742	\$1,328	\$7,848	\$13,743
Corvallis	\$2,471	\$5,197	\$205	\$5,456	\$1,964	\$15,292
Depoe Bay	\$2,976	\$634	\$1,472	\$4,666	\$5,645	\$15,393
Brookings	\$1,537	\$1,718	\$1,044	\$10,710	\$2,419	\$17,428
Silverton	\$3,984	\$4,901	\$879	\$5,014	\$5,504	\$20,282
Newport (recommended SDC @ 1,250 SF)	\$1,506	\$625	\$992	\$1,321	\$745	\$5,189
Newport (recommended SDC @ 2,500 SF)	\$3,248	\$1,430	\$1,344	\$2,416	\$1,265	\$9,800
Newport (recommended SDC @ 4,200 SF)	\$5,227	\$2,500	\$1,967	\$3,458	\$1,948.82	\$15,100

Source: Compiled by FCS GROUP (4/1/2017). Note, actual stormwater SDC will vary by impervious surface area.

APPENDICES

Appendix A, Growth Assumptions

Table A-1

Newport Population and Dwelling Unit Forecasts, select years

	2000	2010	2015	2020	2025	2030	2037	AGR 2000-2015	AGR 2015-2037
Population	9,532	10,030	10,440	10,849	11,259	11,668	12,241	0.61%	0.73%
Dwellings	5,034	5,539	5,760	6,072	6,393	6,724	7,203	0.90%	1.02%
Residents per Dwelling	1.89	1.81	1.81	1.79	1.76	1.74	1.70	-0.29%	-0.29%

Source: Census estimates (2000, 2010); 2037 forecast extrapolated by FCS GROUP.

Abbreviations: AGR = average annual growth rate.

Appendix A-2

Housing Units and related Average Daily Vehicle Trips, City of Newport

Housing	ITE Land Use Code	ADTs per unit	Housing Units	ADT (trips)
1-unit, detached	210	9.45	2,916	27,548
1-unit, attached	230	5.65	284	1,605
2 units	230	5.65	374	2,114
3 or 4 units	230	5.65	450	2,543
5 to 9 units	220	6.50	498	3,237
10 to 19 units	220	6.50	160	1,040
20 or more units	220	6.50	348	2,262
Mobile home	240	4.90	542	2,657
Boat, RV, van, etc.	240	4.90	96	471
Total			5,668	43,476

Source: U.S. Census (2011-15 ACS) and ITE Handbook 9th Edition, compiled by FCS GROUP.

Appendix A-3

Analysis of Jobs and Related Average Daily Vehicle Trips, City of Newport

Employment Sector	ITE Land Use Code	ADTs per job	Jobs	ADT (trips)
Agriculture, Forestry, Fishing and Hunting	140	1.70	43	73
Mining, Quarrying, and Oil and Gas Extraction	140	1.70	28	48
Utilities	110	2.26	93	210
Construction	140	1.70	195	331
Manufacturing	140	1.70	345	586
Wholesale Trade	130	2.60	62	161
Retail Trade	815	30.69	939	28,814
Transportation and Warehousing	30	5.33	46	245
Information	710	2.48	77	191
Finance and Insurance	912	25.63	140	3,588
Real Estate and Rental and Leasing	710	2.48	92	228
Professional, Scientific, and Technical Services	710	2.48	208	516
Management of Companies and Enterprises	710	2.48	7	17
Admin. & Support, Waste Mgmt. and Remediation	710	2.48	189	469
Educational Services	530	15.42	518	7,988
Health Care and Social Assistance	720	7.03	1,001	7,037
Arts, Entertainment, and Recreation	430	21.59	169	3,649
Accommodation and Food Services	310	13.27	1,097	14,557
Other Services (excluding Public Administration)	710	2.48	245	608
Public Administration	710	2.48	755	1,872

Total (2014) 6,249 71,188

Total Intra-City Avg. Daily Vehicle Trip-ends (2015 est.)* **71,915**

Adjusted Total Avg. Daily Vehicle Trips (2015 est.)** **112,477**

Source: U.S. Census On the Map and ITE Handbook 9th Edition, compiled by FCS GROUP. * Based on annual avg. growth rate of 1.02%.

** Assumes 58% trip inflow adjustment.

Appendix B – System Demand Assumptions

Table B-1

Water and Wastewater Adjustment Factors for Single Family Dwelling Units

Home Size Category	Dwelling Unit Size Range (living area sq.ft.)	Avg. Home Size (SF)	Avg. People Per Dwelling (Adjusted for Local Conditions)	Max # of Occupants	Primary Fixtures*
Small	under 1,700 SF	1,250	1.04	8	5
Standard	1,701 to 2,900 SF	2,500	2.07	10	8
Large	over 2,900 SF	4,200	3.48	16	11
Total/Average		2,650	-		8

* primary fixture assumptions:

Water Closets	Lavatory	Shower	Total
2	2	1	5
3	3	2	8
4	4	3	11

Source: Building code calculator; complies with 2013-2016 IBC/IPC/CPC requirements.

Table B-2

Stormwater Impervious Surface Area Assumptions (SF)

Impervious Area Assumptions	Standard			
	ADUs (600 SF)	Small Home (under 1,700 SF)	Home (1,701 to 2,900 SF)	Large Home (over 2,900 SF)
Roof top	600	1,000	1,250	1,750
Parking	350	350	350	500
Total	950	1,350	1,600	2,250
Relative ISA Factor	0.704	0.844	1.000	1.406

Table B3

Transportation and Parks Adjustment Factors by Single Family Dwelling Size

Parks SFD Adjustment Factors

Home Size Category	Dwelling Unit Size Range (living area sq.ft.)	Avg. Home Size (SF)	ADVT per 1,000 SF	ADVT per Dwelling	TSDC Adjustment Factor (revenue neutral)	Parks SFD Adjustment Factors	
						Avg. People Per Dwelling (Adjusted for Local Conditions)	Parks SDC Adjustment Factor
Small	under 1,700 SF	1,250	4.28	5.36	0.50	1.04	0.47
Standard	1,701 to 2,900 SF	2,500	4.04	10.10	0.95	2.07	0.94
Large	over 2,900 SF	4,200	3.72	15.62	1.47	3.48	1.58
Total/Average		2,650	4.02	10.64		2.20	

Source: compiled by FCS Group based on: National Association of Home Builders, *Characteristics of Home Buyers*, Feb. 8, 2013; and National Cooperative Highway Research Program, *Report 365: Travel Estimation Techniques for Urban Planning*, 1998. Census, ACS 2011-15 avg. household size; **Abbreviations:** ADVT = average daily vehicle trips; TSDC = Transportation System Development Charge.

Appendix C – Sidewalk Improvement Program, City of Newport

Newport Transportation SDC Sidewalk Capital Improvement Program, 2017 to 2037						
Project	Location	Description	Total Cost	SDC Eligibility	SDC Cost	
					Share	Source Document
NW 11th Street	NW Spring Street to US 101	Complete sidewalk gaps on both sides of the street	\$ 144,430	100%	\$ 144,430	2008 Ped. Bike Plan
NW 6th Street	NW Coast Street to NW Nye Street	both sides	\$ 203,313	100%	\$ 203,313	2008 Ped. Bike Plan
NE 12th Street	US 101 to NE Benton Street	Complete sidewalk gaps on south side	\$ 66,660	100%	\$ 66,660	2008 Ped. Bike Plan
NE 7th Street	US 101 to NE Eads Street	one side of the street	\$ 144,430	100%	\$ 144,430	2008 Ped. Bike Plan
NE 4th Street	US 101 to NE Douglas Street	both sides of the street	\$ 188,870	100%	\$ 188,870	2008 Ped. Bike Plan
NE 3rd Street	NE Eads Street to NE Harney Street	Complete sidewalk gaps on both sides	\$ 155,540	100%	\$ 155,540	2008 Ped. Bike Plan
SE 1st Street	US 101 to SE Douglas Street	south side	\$ 116,655	100%	\$ 116,655	2008 Ped. Bike Plan
SE 2nd Street	SE Benton Street to SE Douglas Street	south side	\$ 51,106	100%	\$ 51,106	2008 Ped. Bike Plan
SE Benton Street	SE 1st Street to US 20	west side	\$ 19,998	100%	\$ 19,998	2008 Ped. Bike Plan
SE 2nd Street	SE Fogarty Street to SE Harney Street	south side	\$ 49,995	100%	\$ 49,995	2008 Ped. Bike Plan
SE 4th Street	SE Fogarty Street to SE Harney Street	south side	\$ 49,995	100%	\$ 49,995	2008 Ped. Bike Plan
SE Harney Street	SE 4th Street to SE 2nd Street	east side	\$ 43,329	100%	\$ 43,329	2008 Ped. Bike Plan
SW Harbor Drive	SW Bay Street to SW 11th Street	west side	\$ 56,661	100%	\$ 56,661	2008 Ped. Bike Plan
SW Neff Way / SW Alder St.	US 101 to SW 2nd Street	both sides	\$ 188,870	100%	\$ 188,870	2008 Ped. Bike Plan
SW Elizabeth Street	SW Government Street to SW Abbey Street	west side	\$ 161,095	100%	\$ 161,095	2008 Ped. Bike Plan
SE 35th Street	SE Ferry Slip Road to end of street	one side	\$ 444,400	100%	\$ 444,400	2008 Ped. Bike Plan
NW Nye Street	NW 15th Street to SW 2nd Street	Construct bicycle lanes on both sides of street and complete sidewalk gaps on east side of street	\$ 216,645	100%	\$ 216,645	2008 Ped. Bike Plan
NE 7th Street	NE Eads Street to NE 6th Street	Construct bicycle lanes and sidewalks on both sides of street and sidewalks on south side of street	\$ 238,865	100%	\$ 238,865	2008 Ped. Bike Plan
Total			\$ 2,540,857		\$ 2,540,857	

Source: City of Newport, capital improvement plan as of Feb. 28, 2017.

Appendix D-1 – Average Daily Vehicle Trip Generation & SDC Assumptions for New Development

City of Newport Transportation SDCs, FY 2017/18			Trip Categories						Adjusted Trip Rates		\$	316.71
ITE Code	Land Use	Unit	Average	Primary	Pass By	Diverted Linked	Total	Primary ADT	Transit/Ped Factor*	Adjusted ADT	SDC per Unit	
10	Waterport/Marine Terminal	Acre	11.93	100%			100%	11.93		11.93	\$3,778	
20	General Aviation Airport	Avg. Flights/Day	1.98	100%			100%	1.98		1.98	\$627	
30	Intermodal Truck Terminal	Acre	62.51	100%			100%	62.51		62.51	\$19,798	
110	General Light Industrial	1,000 SFGFA	5.26	100%			100%	5.26		5.26	\$1,667	
120	General Heavy Industrial	1,000 SFGFA	1.50	100%			100%	1.50		1.50	\$475	
130	Industrial Park	1,000 SFGFA	5.34	100%			100%	5.34		5.34	\$1,691	
140	Manufacturing	1,000 SFGFA	3.03	100%			100%	3.03		3.03	\$960	
150-51	Warehouse*	1,000 SFGFA	2.96	100%			100%	2.96		2.96	\$937	
160	Data Center	1,000 SFGFA	0.99	100%			100%	0.99		0.99	\$314	
170	Utilities	1,000 SFGFA	0.20	100%			100%	0.20		0.20	\$63	
210	Single-Family Housing (incl. duplex)	Dwelling unit	9.45	100%			100%	9.45		9.45	\$2,992	
220	Apartment	Dwelling unit	6.50	100%			100%	6.50	25%	4.88	\$1,544	
230	Residential Condominium/Townhouse	Dwelling unit	5.65	100%			100%	5.65	25%	4.24	\$1,342	
240	Mobile Home Park	ODU	4.90	100%			100%	4.90		4.90	\$1,552	
252	Senior Adult Housing	Dwelling unit	3.44	100%			100%	3.44	25%	2.58	\$817	
254	Assisted Living	Bed	2.56	100%			100%	2.56	25%	1.92	\$609	
310	Hotel	Room	7.86	100%			100%	7.86		7.86	\$2,488	
320	Motel	Room	5.63	100%			100%	5.63		5.63	\$1,783	
411	City Park	Acre	6.13	100%			100%	6.13		6.13	\$1,942	
412	County Park	Acre	5.10	100%			100%	5.10		5.10	\$1,614	
413	State Park	Acre	0.71	100%			100%	0.71		0.71	\$224	
417	Regional Park	Acre	4.99	100%			100%	4.99		4.99	\$1,581	
430	Golf Course	Acre	5.27	100%			100%	5.27		5.27	\$1,670	
444	Movie Theater with Matinee	Movie screen	387.03	100%			100%	387.03		387.03	\$122,577	
480	Amusement Park	Acre	104.29	100%			100%	104.29		104.29	\$33,029	
481	Zoo	Acre	114.88	100%			100%	114.88		114.88	\$36,384	
491	Health/Fitness Club	1,000 SFGFA	30.32	100%			100%	30.32		30.32	\$9,603	
492	Racquet/Tennis Club	Acre	16.19	100%			100%	16.19		16.19	\$5,128	
494	Bowling Alley	Bowling Lane	34.90	100%			100%	34.90		34.90	\$11,053	
495	Recreational Community Center	1,000 SFGFA	27.40	100%			100%	27.40		27.40	\$8,678	
520	Elementary School	1,000 SFGFA	12.07	59%	41%		100%	7.12		7.12	\$2,256	
522	Middle School/Junior High School	1,000 SFGFA	10.78	59%	41%		100%	6.36		6.36	\$2,015	
530	High School	1,000 SFGFA	10.09	59%	41%		100%	5.95		5.95	\$1,885	
540-50	University/Community College	Students	1.71	100%			100%	1.71		1.71	\$542	
560	Church	1,000 SFGFA	13.22	100%			100%	13.22		13.22	\$4,187	
565	Day Care Center	1,000 SFGFA	54.62	33%	67%		100%	18.02		18.02	\$5,709	
590	Library	1,000 SFGFA	50.46	100%			100%	50.46		50.46	\$15,982	
610	Hospital	1,000 SFGFA	12.17	100%			100%	12.17		12.17	\$3,854	

City of Newport Transportation SDCs, FY 2017/18		ADT		Trip Categories					Adjusted Trip Rates		\$
ITE Code	Land Use	Unit	Average	Primary	Pass By	Diverted Linked	Total	Primary ADT	Transit/Ped Factor*	Adjusted ADT	SDC per Unit
620	Nursing Home	1,000 SFGFA	7.21	100%			100%	7.21		7.21	\$2,284
710	General Office Building*	1,000 SFGFA	8.38	80%	20%		100%	6.70		6.70	\$2,123
715	Single Tenant Office Building*	1,000 SFGFA	11.65	80%	20%		100%	9.32		9.32	\$2,952
720	Medical-Dental Office Building*	1,000 SFGFA	27.31	80%	20%		100%	21.85		21.85	\$6,919
730	Government Office Building*	1,000 SFGFA	68.93	80%	20%		100%	55.14		55.14	\$17,465
731	State Motor Vehicles Department*	1,000 SFGFA	120.90	80%	20%		100%	96.72		96.72	\$30,632
732	United States Post Office	1,000 SFGFA	88.35	100%			100%	88.35		88.35	\$27,981
750	Office Park	1,000 SFGFA	8.50	80%	20%		100%	6.80		6.80	\$2,154
760	Research and Development Center*	1,000 SFGFA	6.22	100%			100%	6.22		6.22	\$1,971
770	Business Park*	1,000 SFGFA	9.44	80%	20%		100%	7.55		7.55	\$2,391
812	Building Materials and Lumber Store*	1,000 SFGFA	43.13	72%	28%		100%	31.05		31.05	\$9,835
813	Free-Standing Discount Superstore	1,000 SFGFA	53.42	72%	28%		100%	38.46		38.46	\$12,181
814	Variety Store	1,000 SFGFA	64.03	48%	17%	35%	100%	30.57		30.57	\$9,683
815	Free-Standing Discount Store	1,000 SFGFA	59.09	48%	17%	35%	100%	28.22		28.22	\$8,936
816	Hardware/Paint Store	1,000 SFGFA	58.23	45%	26%	30%	100%	25.91		25.91	\$8,207
817	Nursery (Garden Center)*	1,000 SFGFA	82.86	72%	28%		100%	59.66		59.66	\$18,894
818	Nursery Wholesale	Acre	19.50	100%			100%	19.50		19.50	\$6,176
820	Shopping Center	1,000 SFGFA	41.24	50%	34%	16%	100%	20.68		20.68	\$6,550
826	Specialty Retail Center*	1,000 SFGFA	40.58	46%	22%	32%	100%	18.72		18.72	\$5,928
841	Automobile Sales	1,000 SFGFA	29.27	100%			100%	29.27		29.27	\$9,269
843	Automobile Parts Sales	1,000 SFGFA	61.91	44%	43%	13%	100%	27.24		27.24	\$8,627
848	Tire Store	1,000 SFGFA	24.87	69%	28%	3%	100%	17.08		17.08	\$5,409
850	Supermarket	1,000 SFGFA	122.18	39%	36%	25%	100%	47.34		47.34	\$14,994
851	Convenience Market (Open 24 Hours)	1,000 SFGFA	758.79	33%	61%	6%	100%	246.81		246.81	\$78,166
857	Discount Club	1,000 SFGFA	42.35	100%			100%	42.35		42.35	\$13,411
862	Home Improvement Superstore	1,000 SFGFA	38.03	44%	48%	8%	100%	16.73		16.73	\$5,300
880	Pharmacy/Drugstore without Drive-Through	1,000 SFGFA	90.06	42%	53%	5%	100%	38.13		38.13	\$12,075
881	Pharmacy/Drugstore with Drive-Through	1,000 SFGFA	96.91	38%	49%	13%	100%	36.83		36.83	\$11,663
890	Furniture Store	1,000 SFGFA	4.98	37%	53%	10%	100%	1.83		1.83	\$579
912	Bank with Drive-Through	1,000 SFGFA	122.71	27%	47%	26%	100%	33.54		33.54	\$10,623
925	Drinking Place	1,000 SFGFA	125.70	60%	40%		100%	75.42		75.42	\$23,886
931-2	Sit-Down Restaurant**	1,000 SFGFA	88.04	43%	44%	14%	100%	37.42		37.42	\$11,850
933	Fast-Food Restaurant without Drive-Through	1,000 SFGFA	40.14	43%	44%	14%	100%	17.06		17.06	\$5,402
934	Fast-Food Restaurant with Drive-Through	1,000 SFGFA	535.05	41%	50%	9%	100%	219.07		219.07	\$69,383
936	Coffee/Donut Shop without Drive-Through	100 SFGFA	598.00	56%	44%	0%	100%	334.88		334.88	\$10,606
937	Coffee/Donut Shop with Drive-Through*	100 SFGFA	818.58	41%	50%	9%	100%	335.16		335.16	\$10,615
944	Gasoline/Service Station	VFP	168.56	35%	42%	23%	100%	59.00		59.00	\$18,685
945	Gasoline Station with Convenience Market	VFP	162.78	13%	56%	31%	100%	20.80		20.80	\$6,587
946	Gasoline/Service Station with Car Wash	VFP	152.84	24%	49%	27%	100%	36.51		36.51	\$11,564

Source: ITE Trip Generation Handbook, 9th Edition; and local assumptions, compiled by FCS GROUP. * Denotes local assumptions by City staff.

Abbreviations	
ADT	average daily vehicle trips
ODU	occupied dwelling unit
SFGFA	square feet of gross floor area
SFGLA	square feet of gross leasable area
VFP	vehicle fueling position

Appendix D-2 – Average Daily Vehicle Trip Generation & SDC Assumptions for Special Districts

Newport Special District Transportation SDCs, FY 2017/18**			Trip Categories							Adjusted Trip Rates	\$ 316.71
ITE Code	Land Use	ADT	Pass Diverted				Primary	Transit/ Ped	Adjusted	SDC per Unit	
		Unit	Average	Primary	By	Linked	Total	ADT	Factor*	ADT	
820	Shopping Center	1,000 SFGLA	41.2	50%	34%	16%	100%	20.7	20%	16.54	\$5,240
826	Specialty Retail Center*	1,000 SFGLA	40.6	46%	22%	32%	100%	18.7	20%	14.97	\$4,743
850	Supermarket	1,000 SFGFA	122.2	39%	36%	25%	100%	47.3	20%	37.87	\$11,995
851	Convenience Market (Open 24 Hours)	1,000 SFGFA	758.8	33%	61%	6%	100%	246.8	20%	197.44	\$62,533
925	Drinking Place	1,000 SFGFA	125.7	60%	40%		100%	75.4	20%	60.34	\$19,109
931-2	Sit-Down Restaurant***	1,000 SFGFA	88.0	43%	44%	14%	100%	37.4	20%	29.93	\$9,480
933	Fast-Food Restaurant without Drive-Through	1,000 SFGFA	40.1	43%	44%	14%	100%	17.1	20%	13.65	\$4,322
934	Fast-Food Restaurant with Drive-Through	1,000 SFGFA	535.1	41%	50%	9%	100%	219.1	20%	175.26	\$55,506
936	Coffee/Donut Shop without Drive-Through*	100 SFGFA	598.0	43%	44%	14%	100%	254.2	20%	203.32	\$6,439
937	Coffee/Donut Shop with Drive-Through	100 SFGFA	818.6	41%	50%	9%	100%	335.2	20%	268.13	\$8,492

Source: ITE Trip Generation Handbook, 9th Edition; and local assumptions, compiled by FCS GROUP. * Denotes local assumptions by City staff.

** Includes development within Historic Downtown area, Nye Beach area, Deco District area, or Wilder (South Beach) area.

*** denotes ITE code 931 quality restaurant.

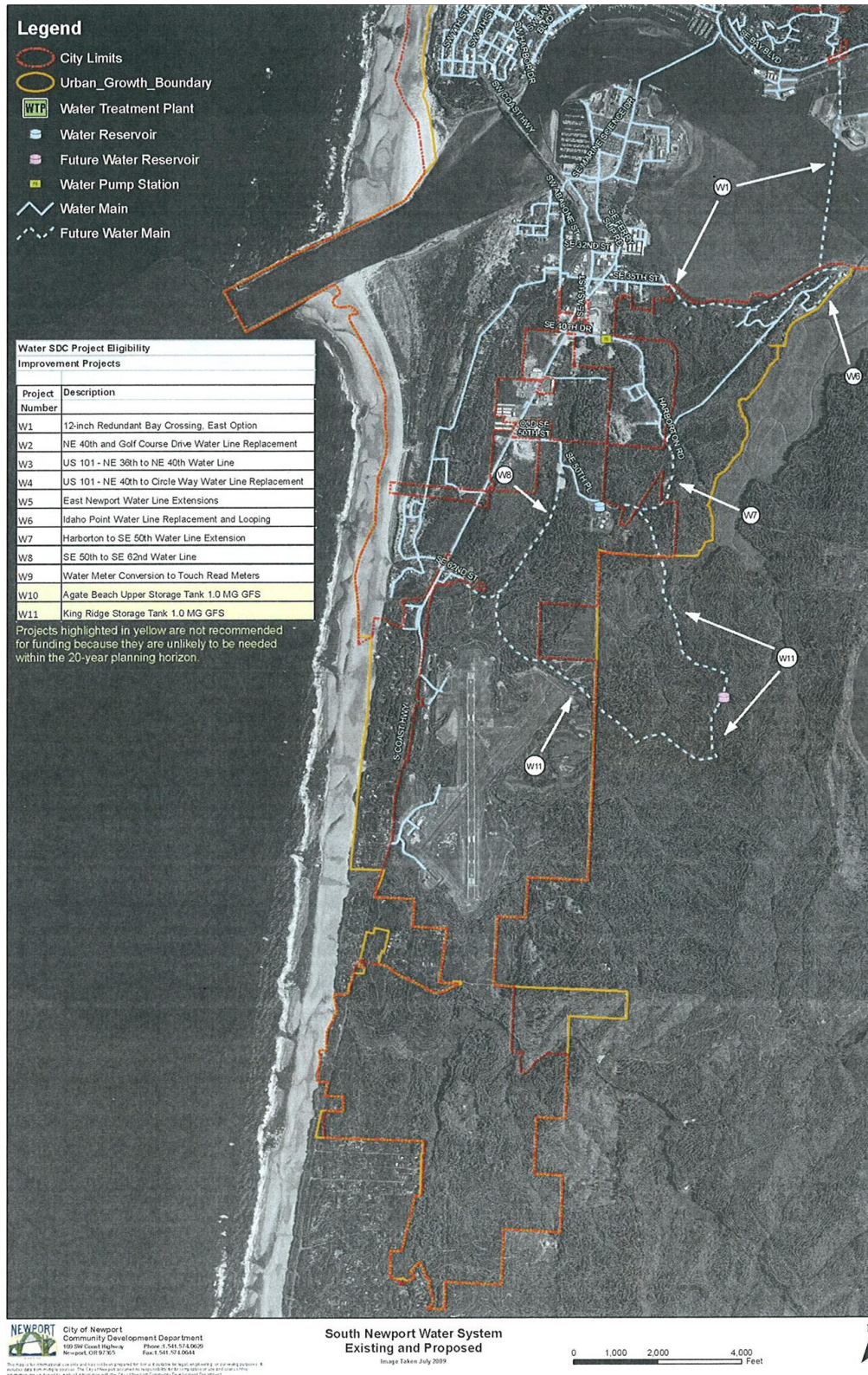
Abbreviations	
ADT	average daily vehicle trips
ODU	occupied dwelling unit
SFGFA	square feet of gross floor area
SFGLA	square feet of gross leasable area
VFP	vehicle fueling position

Appendix E – Public Facility Improvements

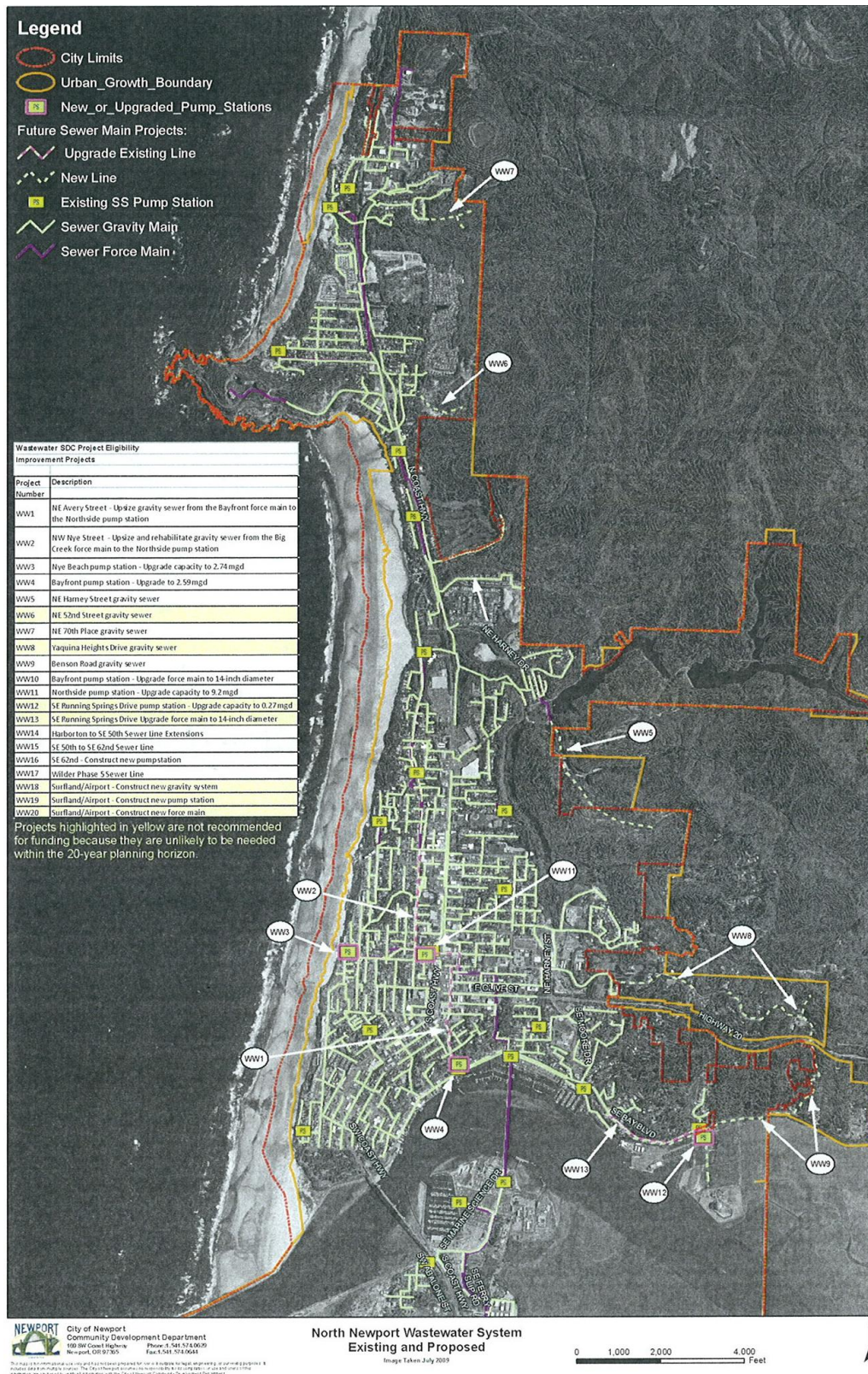
Water Capital Improvements



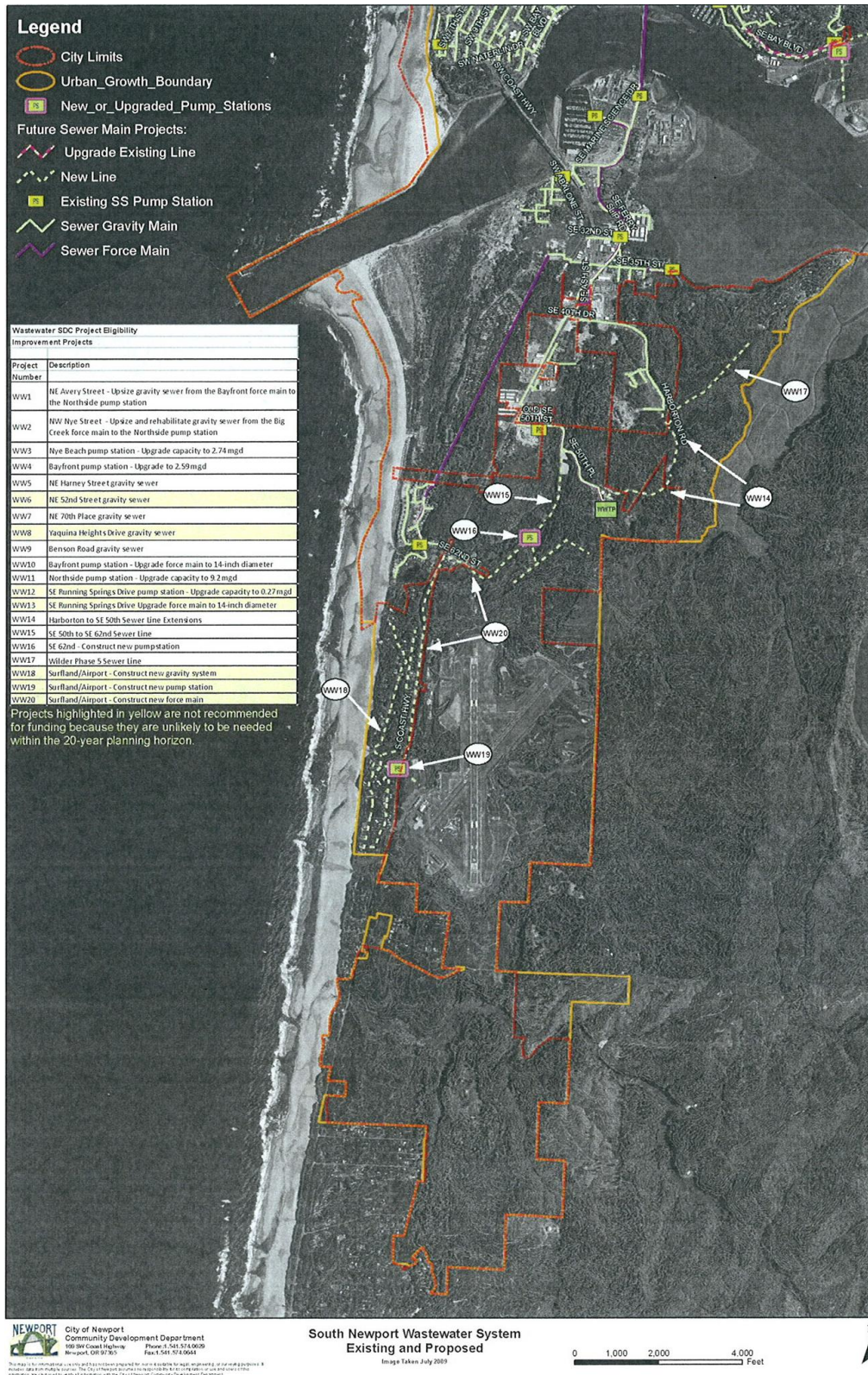
Water Capital Improvements



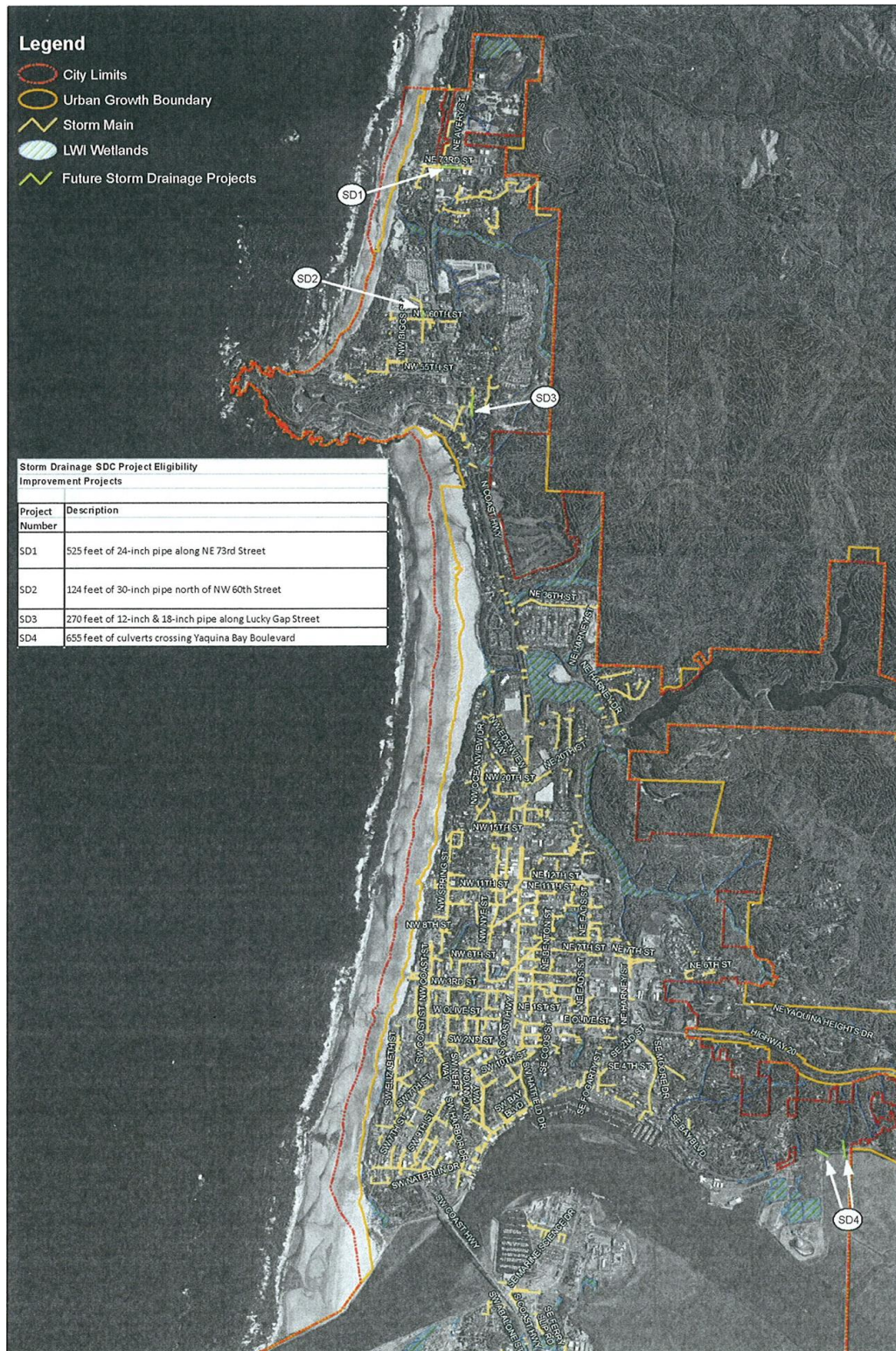
Wastewater Capital Improvements



Wastewater Capital Improvements



Storm Drainage Capital Improvements



Legend

- City Limits
- Urban Growth Boundary
- Storm Main
- LWI Wetlands
- Future Storm Drainage Projects

Storm Drainage SDC Project Eligibility Improvement Projects	
Project Number	Description
SD1	525 feet of 24-inch pipe along NE 73rd Street
SD2	124 feet of 30-inch pipe north of NW 60th Street
SD3	270 feet of 12-inch & 18-inch pipe along Lucky Gap Street
SD4	655 feet of culverts crossing Yaquina Bay Boulevard

NEWPORT City of Newport
Community Development Department
100 SW Coast Highway Phone: 541.574.0639
Newport, OR 97305 Fax: 541.574.0644

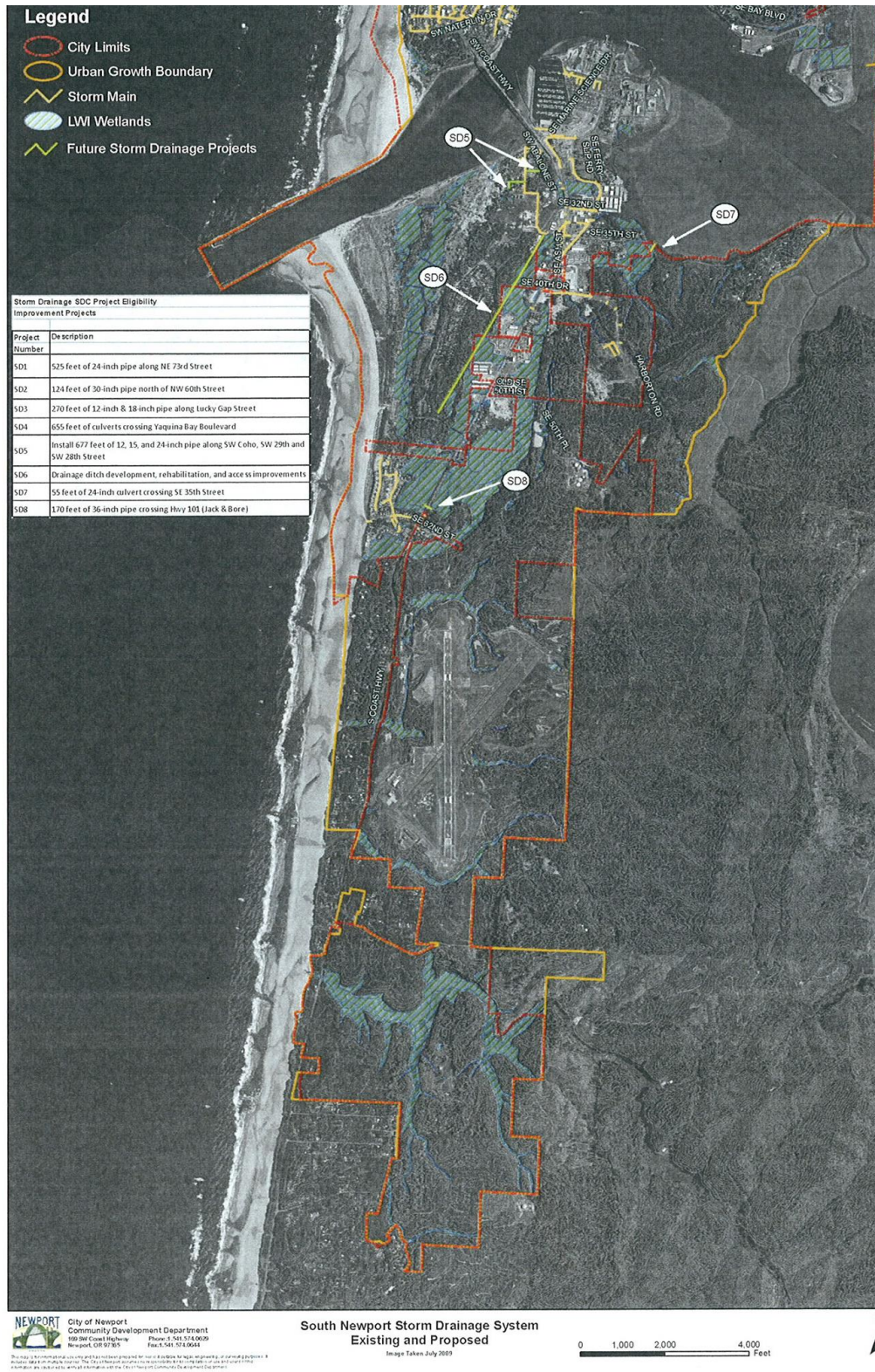
North Newport Storm Drainage System
Existing and Proposed

Image Taken July 2009

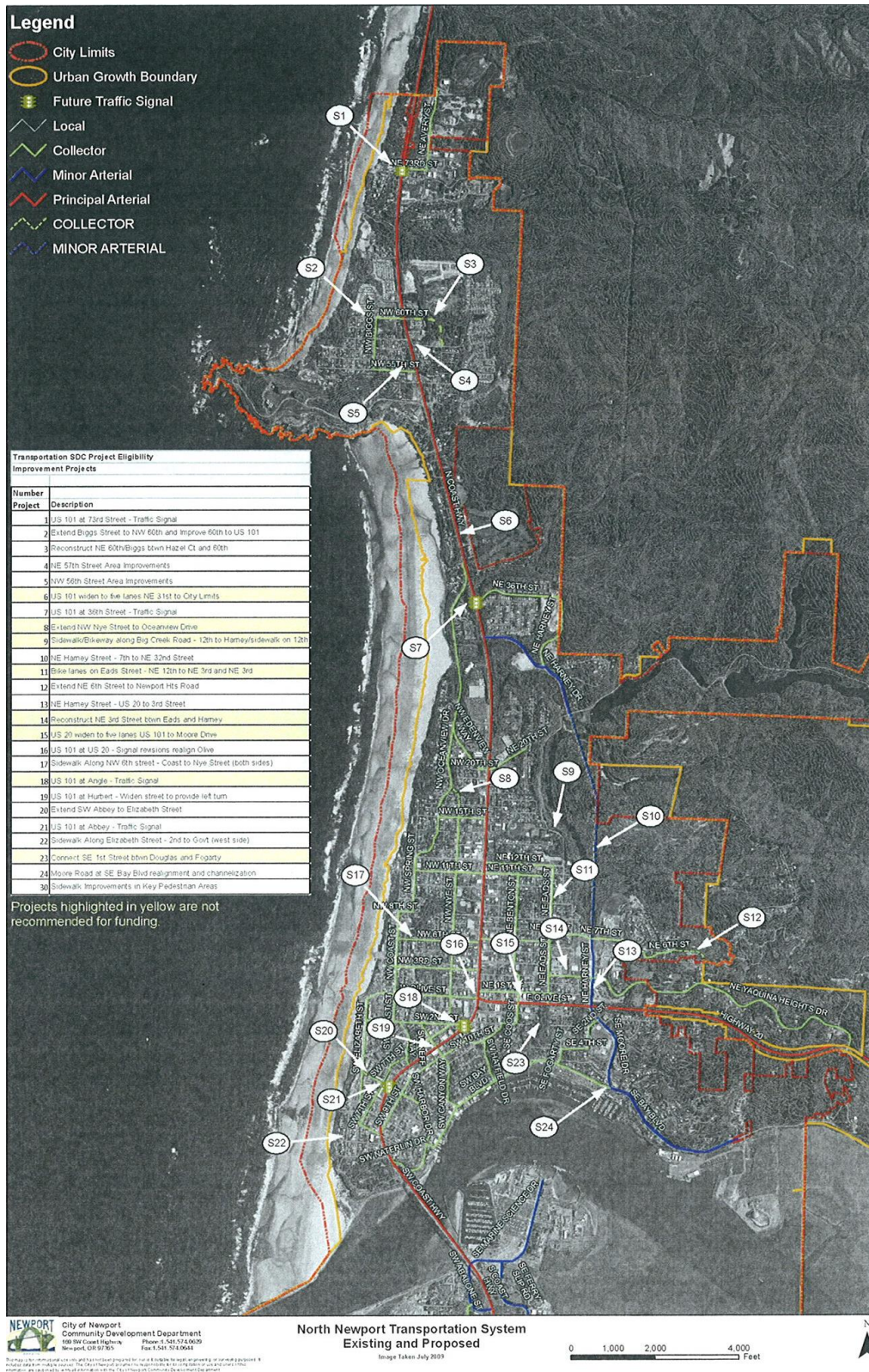
0 1,000 2,000 4,000 Feet



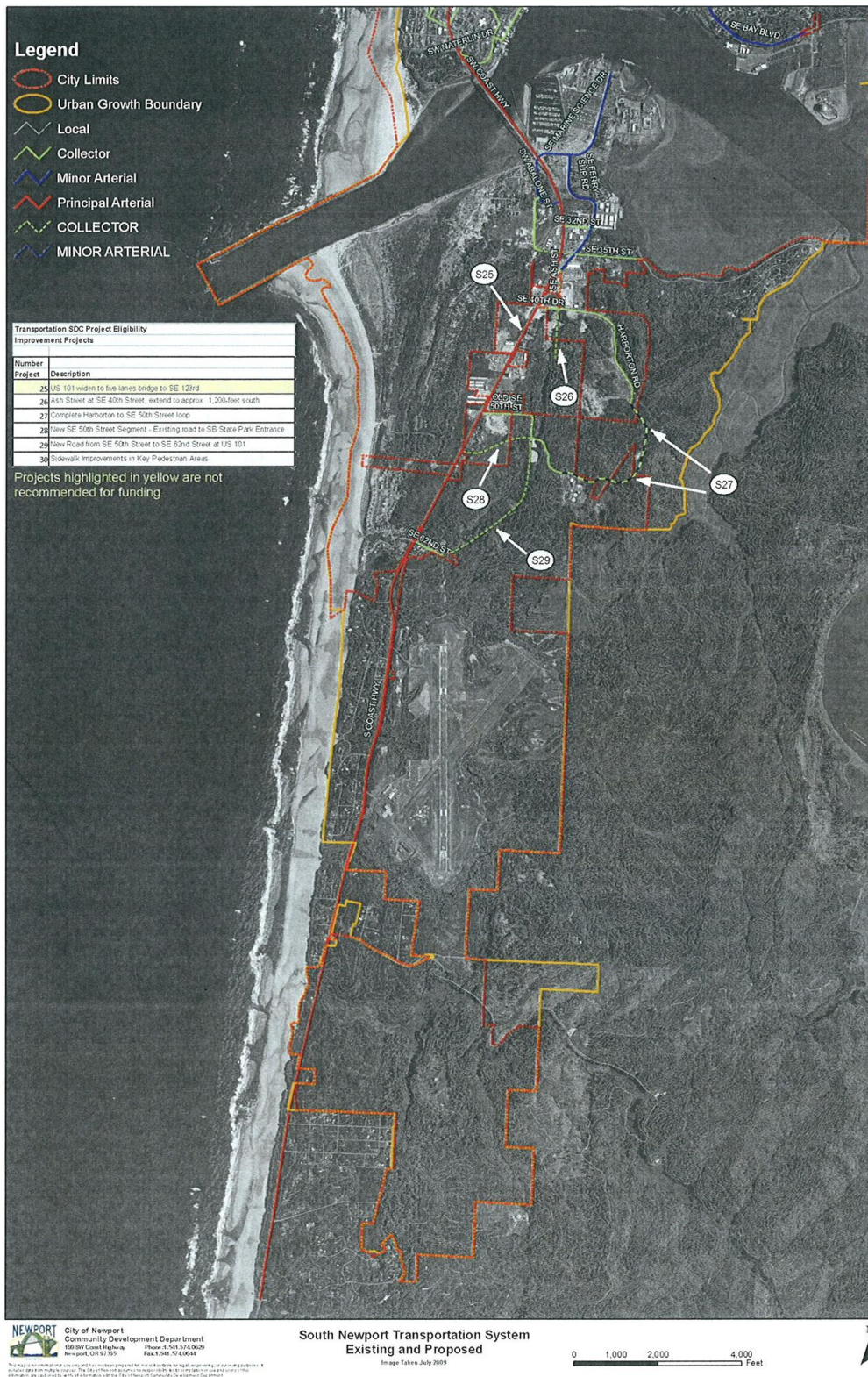
Storm Drainage Capital Improvements



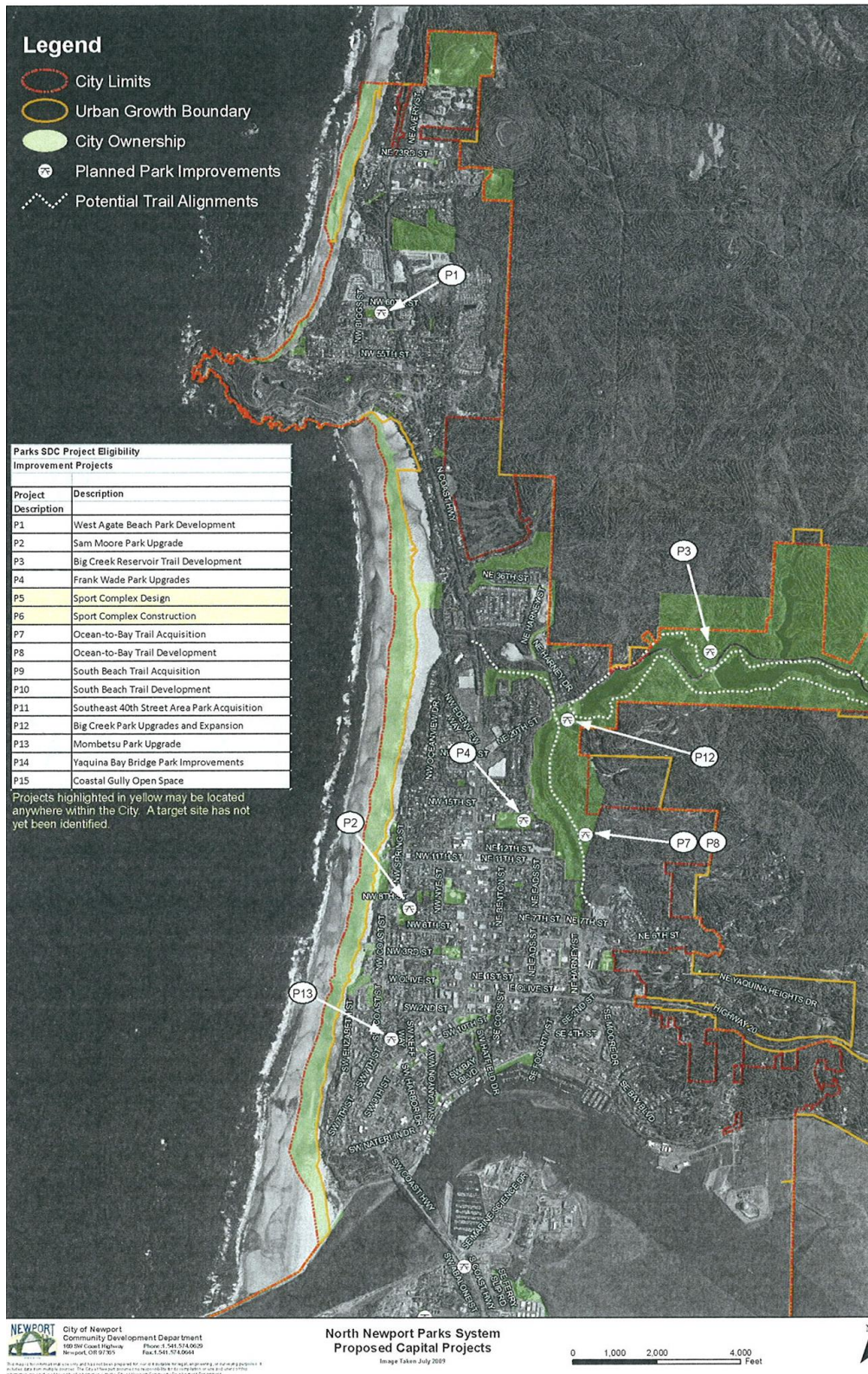
Transportation Capital Improvements



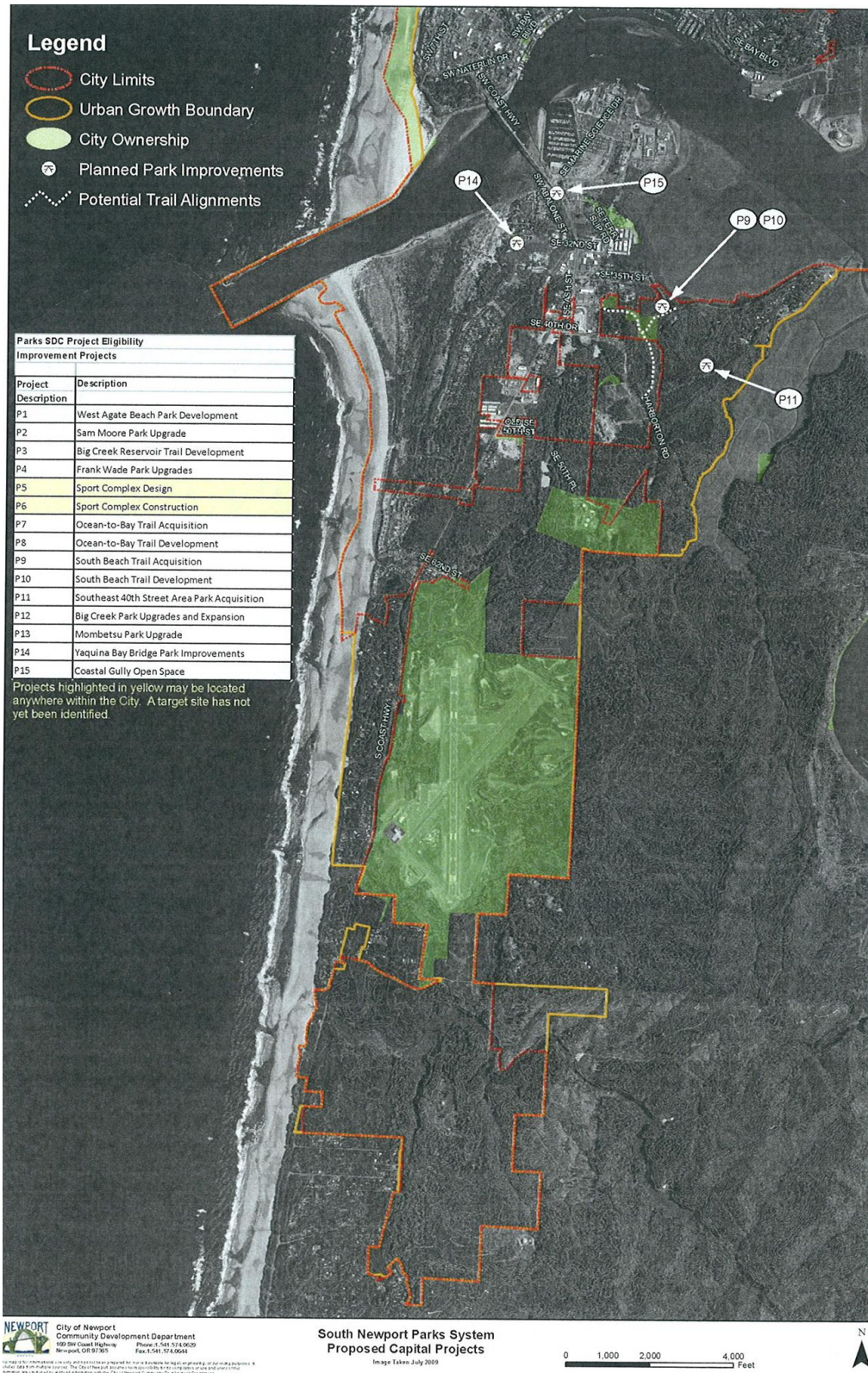
Transportation Capital Improvements



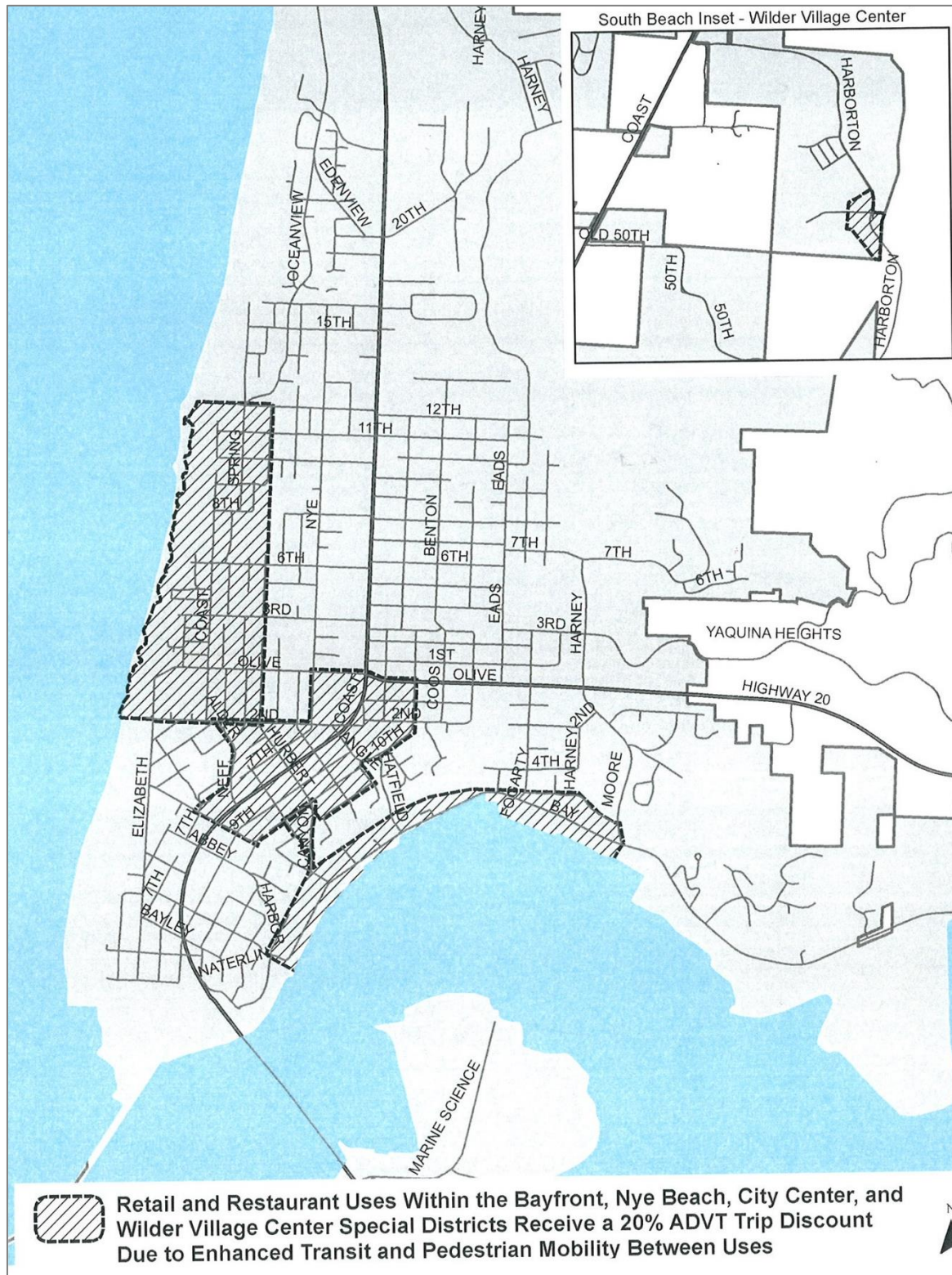
Parks Capital Improvements



Parks Capital Improvements



Appendix F – Newport SDC Special Districts





System Development Charges Survey Report

APRIL 2023

2023 System Development Charges Survey Report

April 2023

A study of system development charges (SDC) administered by League of Oregon Cities found striking differences in city SDC implementation. Differences often depended on region, as well as population. The number of cities in Oregon providing reductions and waivers over the last few years has increased dramatically. The rationale for accommodations previously related mostly to economic concerns, but are now centered on affordable housing. Fee estimates on non-residential development have increased far more than those for residential developments, likely due to the ongoing effort to increase affordable housing.

Introduction

Every three years, the League of Oregon Cities (LOC) surveys member cities about their system development charges (SDCs). SDCs are an important means for cities to finance existing and planned infrastructure development to accommodate new users. These fees are set by each city and paid through new construction. As a result, cities with more new development will have more revenue generated from SDCs. New development creates the need for a larger capacity to provide city services such as water, transportation, sewer, stormwater, and parks and recreation. A city can establish an SDC for any or all of these services. The fees can reimburse a city for extra capacity built into a system, pay for building new capacity to accommodate new development, or a combination of the two.

When setting an SDC, cities must include all planned future projects related to the service, which must be outlined in the SDC methodology. When setting the rate paid by development projects, cities can also reduce the SDC below actual costs of building the capacity. Therefore, when SDCs are set, they can balance the costs of needed infrastructure with impacts on development within cities.

The LOC surveyed its members on their utilization of SDCs, including the types charged, rates and methods. The survey also asked about waivers, deferments, or other accommodations that cities provide. The survey received responses from 66 cities, which is lower than previous iterations of this survey. The resulting data shows that like other areas of city services, larger cities have far more complex and developed SDC structures.

Example 1 – House (Residential):	Example 2 - Office Building (Non-Residential):
<i>Single-family, 3-bedroom home</i>	<i>Professional building for general office use</i>
Lot size: 9,000 sq. ft.	Lot size: 47,000 sq. ft.
Building size: 2,000 sq. ft.	Building size: 20,000 sq. ft.
Development value: \$190,000	Development value: \$960,000
Land value: \$60,000	Land value: \$180,000
Parking spaces: 2	Parking spaces: 50
Water meter size: 3/4 inch	Water meter size: 2 inches
Water flow (gallons/mo.): 6,000	Water flow (gallons/mo.): 33,000
Fixture units: 16	Fixture units: 64
Number of employees: N/A	Number of employees: 96
Impervious Square Footage: 1,000 sq. ft.	Impervious Surface Area: 50% of Lot Size
	Storage: 35% of Sq. Footage
	ITE Code #710

Figure 1: Hypothetical Residential and Commercial Properties for SDC Calculations

Cities may use different calculation methods compared to neighboring cities and may include different fee structures. This creates difficulty in assessing the size and scope of development charges. Figure 1 above provides hypothetical residential and commercial property specifications to aid cities in evaluating their charges. This allows not only for a comparable rate across cities in varying regions and populations, but it also provides opportunity for historical analysis. This hypothetical property has been used, unchanged since 2010, providing the LOC with the ability to track major trends in city revenue. While the LOC has previously conducted historical analysis in this report, it was removed from the 2022 version due to a lower response rate. The hope is that future SDC surveys will allow for the return of this analysis.

General Results

Among survey respondents, 76% of cities collect SDCs for their city, county and/or special districts. Cities with a population greater than 3,250 were more likely to have SDCs of any kind, which is higher in population than the LOC's findings in previous surveys, perhaps indicating a decline of SDC collection for other government entities in smaller cities. Cities in the North Coast, Metro, South Willamette and Central Oregon regions were also more likely to collect SDCs. This is likely due to the recent history in these regions of city growth and development.

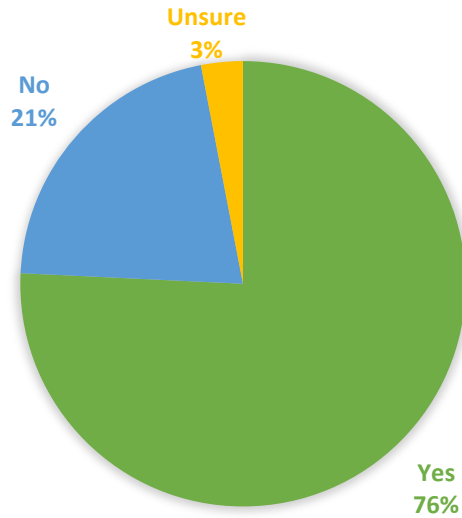


Figure 2: Does your city currently collect any System Development Charges (SDC's) for the city, county, or special district?

A similar pattern occurs when respondent cities are asked about other governmental entities, such as counties and special districts, charging SDCs. While only 18% of cities have other governments charge SDCs within their boundaries, this is more likely to occur in larger cities (in this case, those with a population greater than 10,600) and in the Metro and South Willamette regions. The significance of these regions suggests the other governments charging SDCs are likely counties, regional governments, and special districts. Amongst text answers, cities listed a variety of special districts, including parks districts (such as Chehalem Parks & Recreation District), and water and sewer services (such as Nehalem Bay Wastewater Agency).

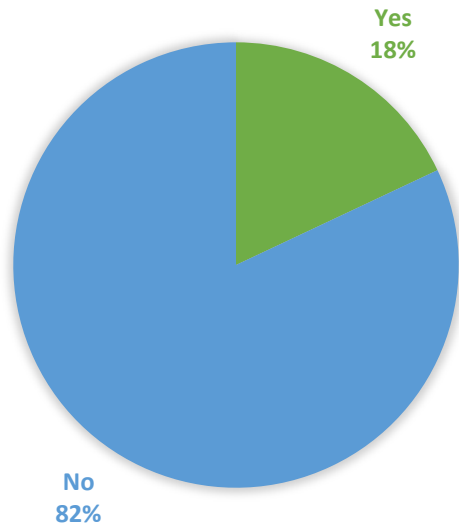


Figure 3: Do any other governmental entities levy and collect an SDC on development projects within the city?

The median year in which SDCs were last updated was 2018, which means the median has consistently increased every year by one year. Updates were far more likely to be in the recent past in larger cities. The median year in which SDCs would next be reviewed was 2023. This shows that cities are ready to review their existing SDCs in the near future. However, it should be noted that the common response of review and update in the near future was also common in the 2019 SDC Survey and also in the 2016 surveys.

There are nine respondent cities (14%) that have either a construction excise tax (CET) or an equivalent based on square footage or building valuation; far less than what was seen in the 2019 and 2016 surveys. This, however, may be due to differences in survey sample size. Two-thirds of these cities had a population greater than 10,600 residents. CETs were most common in the North Coast Metro and Willamette Valley regions. Regions that have a statistically significant “no” response to CETs were all east of the Cascade Mountains. Rates of such CETs commonly equated to 1% of the buildings valuation. Respondents note that these excise taxes are often collected on behalf of school districts, affordable housing initiatives and Metro Regional Government when the city was a Metro member.

Accommodations

The 2016 version of this survey found a significant number of cities had increased their accommodations to incentivize development, including fee reductions, etc. Many of these cities cited the need to aid local development following the Great Recession. In the last six years, the number of cities providing waivers has significantly increased from 31% to 54% in 2022. This correlates with the perception that cities are adopting incentives to advance the development of affordable housing and address the state's housing shortage. These accommodations have most often been applied to all city SDC's and are more common for residential development. Affordable housing and assistance for low-income residential development continue to be the primary reasons for such waivers and accommodations. Accommodations were most common in cities with a population greater than 3,275 and in the Metro, North Willamette and Central Oregon regions. These findings indicate accommodations for affordable housing have expanded to include smaller cities as well as more regions, especially North Willamette, which was not a significant region for these accommodations in the past.

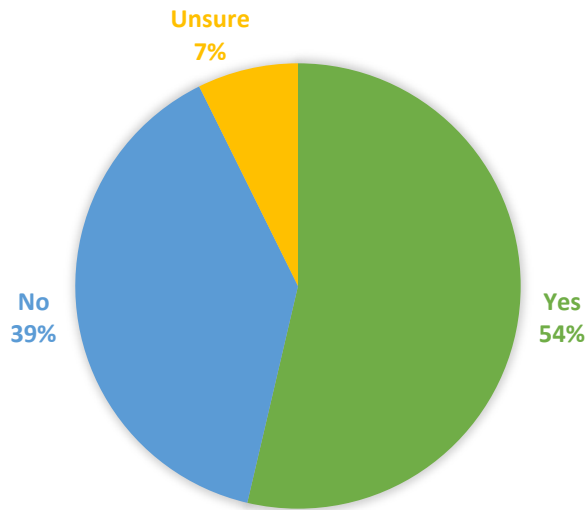


Figure 4: Has your city provided waivers and accommodation in last three years?

SDC Specific Results

Parks System Development Charges

Among respondent cities, 36 had SDCs to fund parks. This constitutes 55% of the cities surveyed, and was most common in cities with a population greater than 3,250 residents. Further, parks SDCs were most common in the Metro region, both Willamette Valley regions, and the Central Oregon region. No city in the Eastern Oregon region had parks SDCs.

Parks SDC- Average Annual Revenue 2019-2022				
Quintile	2019	2020	2021	2022
1st Quintile	NA	NA	NA	NA
2nd Quintile	\$ 18,417	\$ 284,369	\$ 547,066	\$ 683,086
3rd Quintile	\$ 2,905	\$ 4,083	\$ 25,981	\$ 10,762
4th Quintile	\$ 136,986	\$ 88,313	\$ 113,756	\$ 183,120
5th Quintile	\$ 451,472	\$ 704,167	\$ 616,863	\$ 799,210
TOTAL	\$ 239,908	\$ 361,224	\$ 363,260	\$ 445,081
Region				
N. Coast	NA	NA	NA	\$ -
Metro	\$ 445,443	\$ 635,202	\$ 505,818	\$ 753,146
N. Willamette	\$ 203,010	\$ 142,796	\$ 119,711	\$ 119,481
S. Willamette	\$ 74,144	\$ 204,514	\$ 389,814	\$ 524,762
C. Coast	NA	NA	NA	NA
S. Coast	NA	NA	NA	NA
S. Oregon	\$ 34,629	\$ 29,403	\$ 77,875	\$ 50,663
Gorge	\$ -	\$ -	\$ -	\$ -
C. Oregon	\$ 764,422	\$ 1,446,037	\$ 1,447,826	\$ 1,616,318
SC Oregon	\$ 49,752	\$ 116,060	\$ 48,693	\$ 36,103
NE Oregon	\$ 15,367	\$ 8,213	\$ 29,068	\$ 30,583
E. Oregon	NA	NA	NA	NA
TOTAL	\$ 239,908	\$ 361,224	\$ 363,260	\$ 445,081

Table 1: Average Annual Parks SDC Revenue 2019-2022

These 36 cities collected an average of \$445,081 from parks SDCs in FY2022. As would be expected, the larger the city, the more revenue was collected. While no revenue was collected from respondents for parks SDCs for cities with a population less than 470, an average of \$799,210 was collected for cities with a population greater than 10,600.

Average Estimated Parks SDCs FY2022		
	Residential	Non-Residential
1st Quintile	NA	NA
2nd Quintile	\$1,577	NA
3rd Quintile	\$843	\$10,261
4th Quintile	\$4,015	NA
5th Quintile	\$5,541	\$40,308
TOTAL	\$3,787	\$26,954
N. Coast	\$510	NA
Metro	\$6,536	\$46,859
N. Willamette	\$2,633	\$37,140
S. Willamette	\$3,794	\$7,135
C. Coast	NA	NA
S. Coast	NA	NA
S. Oregon	\$1,234	NA
Gorge	\$5,064	NA
C. Oregon	\$3,506	NA
SC Oregon	\$1,748	NA
NE Oregon	\$826	\$1,870
E. Oregon	NA	NA
TOTAL	\$3,787	\$26,954

Table 2: Average Estimated Parks SDCs for FY2022

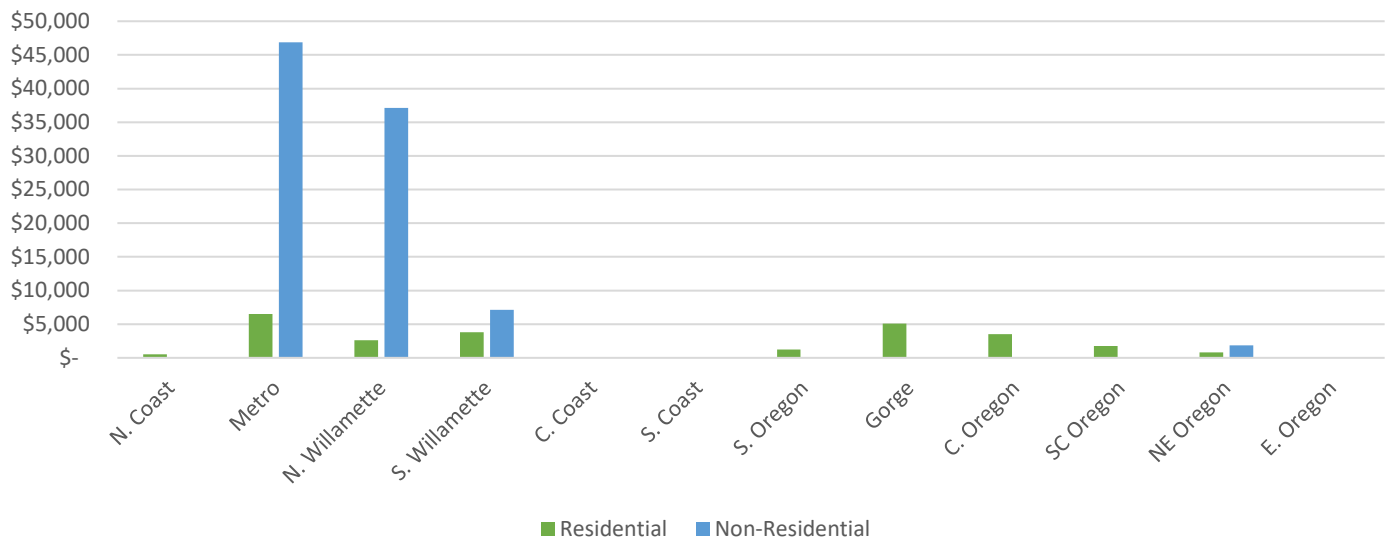


Figure 5: Average Estimated Parks SDCs for FY2018 by Region

Nineteen cities charge parks SDC for only residential development, whereas nine more charge for both residential and non-residential development. Non-residential charges are more likely in cities with a population greater than 10,000, as well as in the Metro and North Willamette Valley regions. Based on the example structures from Figure 1, parks SDC's averaged \$3,787 for residential structures and \$26,954 for non-residential development. The non-residential fees were significantly higher than the \$17,000 estimate observed in 2018. This may be due to differences in sample size, but could also speak to a significant increase in non-residential development. Compare this to the 2018 estimate for residential, which remain nearly identical. Fee calculations were most commonly assessed per unit.

Sewer System Development Charges

Forty-three cities had SDCs to fund sewers. This constitutes 65% of the cities surveyed, and was most common in cities with a population greater than 1,300. This was the most common SDC cities collected, followed closely by water SDCs. Sewer charges were most common in the South Willamette Valley, and Central Oregon regions.

Sewer SDC- Average Annual Revenue 2019-2022				
Quintile	2019	2020	2021	2022
1st Quintile	NA	NA	NA	NA
2nd Quintile	\$ 8,344	\$ 17,491	\$ 4,043	\$ 33,716
3rd Quintile	\$ 28,706	\$ 20,844	\$ 131,630	\$ 19,823
4th Quintile	\$ 134,683	\$ 131,967	\$ 234,687	\$ 192,126
5th Quintile	\$ 655,197	\$ 704,399	\$ 913,841	\$ 1,128,015
TOTAL	\$ 298,482	\$ 314,921	\$ 450,056	\$ 463,289
Region				
N. Coast	\$ 69,503	\$ 39,560	\$ 99,644	\$ 91,406
Metro	\$ 504,291	\$ 338,677	\$ 522,671	\$ 907,037
N. Willamette	\$ 620,698	\$ 496,049	\$ 1,040,372	\$ 756,443
S. Willamette	\$ 205,654	\$ 252,790	\$ 335,923	\$ 565,489
C. Coast	NA	NA	NA	NA
S. Coast	\$ -	\$ -	\$ -	\$ -
S. Oregon	\$ 5,640	\$ 2,778	\$ 33,140	\$ 27,231
Gorge	\$ 112,989	\$ 86,668	\$ 57,325	\$ 70,400
C. Oregon	\$ 622,099	\$ 948,788	\$ 950,824	\$ 832,974
SC Oregon	\$ 166,579	\$ 606,346	\$ 538,669	\$ 354,957
NE Oregon	\$ 9,666	\$ 7,721	\$ 56,593	\$ 49,936
E. Oregon	NA	NA	NA	NA
TOTAL	\$ 298,482	\$ 314,921	\$ 450,056	\$ 463,289

Table 3: Average Annual Parks SDC Revenue 2019-2022

An average of almost \$463,289 was collected from sewer SDCs in FY2022. While larger cities often collect higher rates of revenue, the amount for cities with a population greater than 10,600 is almost six times that of cities in the 4th Quintile. This is notable, as sewer SDCs are common in both these population categories. No city with a population less than 470 listed revenue for this SDC.

Average Estimated Sewer SDCs FY2022		
	Residential	Non-Residential
1st Quintile	NA	NA
2nd Quintile	\$3,973	\$4,098
3rd Quintile	\$3,954	\$22,034
4th Quintile	\$4,239	\$16,248
5th Quintile	\$5,397	\$27,723
TOTAL	\$4,564	\$20,368
N. Coast	\$4,866	\$15,435
Metro	\$7,682	\$33,414
N. Willamette	\$5,117	\$26,025
S. Willamette	\$4,842	\$15,150
C. Coast	NA	NA
S. Coast	NA	NA
S. Oregon	\$1,857	\$1,438
Gorge	\$2,118	\$11,296
C. Oregon	\$4,373	\$29,914
SC Oregon	\$6,691	NA
NE Oregon	\$2,577	\$14,580
E. Oregon	NA	NA
TOTAL	\$4,564	\$20,368

Table 4: Average Estimated Sewer SDCs for FY2022

Twenty-eight cities charge sewer SDC for residential development, and all but six charged for non-residential development. Based on the example developments from Figure 1, sewer SDC's averaged \$4,564 for residential structures, and \$20,368 for non-residential development. While non-residential averages remain similar to the 2018 estimates, residential charges in this category increased by almost \$800. Fee calculations were most commonly assessed as a flat fee per unit.

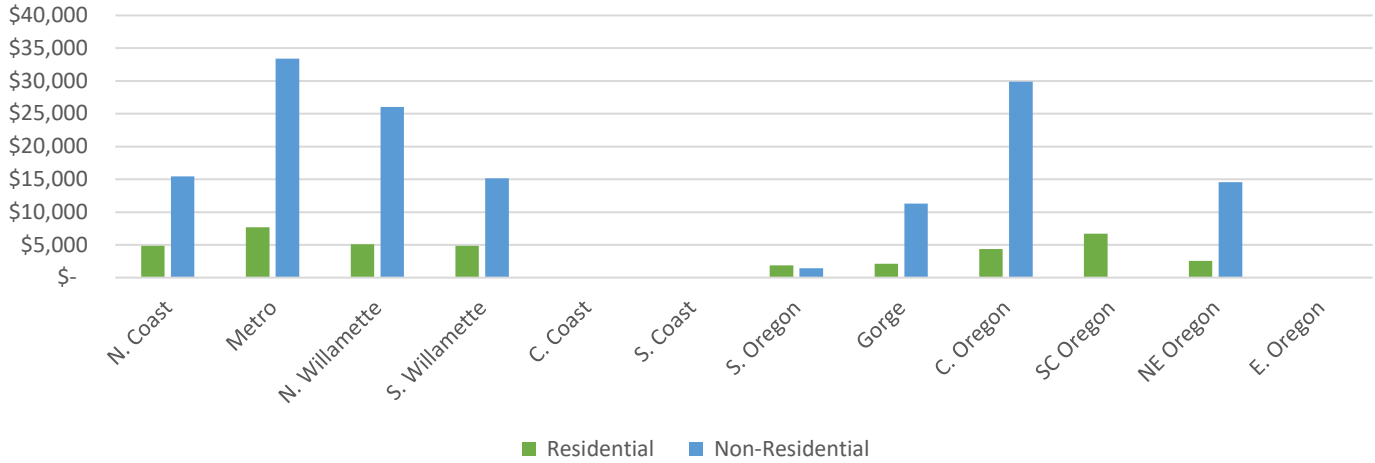


Figure 6: Average Estimated Sewer SDCs for FY2022 by Region

Stormwater System Development Charges

Among respondent cities, 46 had SDCs to fund stormwater infrastructure, which constitutes 48% of the cities surveyed and is most common in cities with a population greater than 3,000. Stormwater SDCs were most common to the Metro, North, and South Willamette Valley regions. These regions are all contained within the Willamette Drainage Basin, an area known for periodic flooding. No city with a population less than 450 or in the South-Central, Northeastern, Eastern Oregon regions had stormwater SDCs.

Stormwater SDC- Average Annual Revenue 2019-2022				
Quintile	2019	2020	2021	2022
1st Quintile	\$ 4,852	\$ -	\$ 1,213	\$ 3,639
2nd Quintile	\$ 4,642	\$ 8,688	\$ 183	\$ 378
3rd Quintile	\$ 21,481	\$ 35,473	\$ 172,790	\$ 10,518
4th Quintile	\$ 48,009	\$ 25,375	\$ 45,893	\$ 30,863
5th Quintile	\$ 106,593	\$ 71,198	\$ 168,840	\$ 138,216
TOTAL	\$ 62,417	\$ 42,271	\$ 106,554	\$ 66,105
Region				
N. Coast	\$ 6,204	\$ 3,594	\$ 7,217	\$ 5,597
Metro	\$ 118,535	\$ 70,934	\$ 193,063	\$ 101,029
N. Willamette	\$ 33,290	\$ 44,338	\$ 179,359	\$ 50,692
S. Willamette	\$ 80,756	\$ 52,426	\$ 80,843	\$ 94,420
C. Coast	NA	NA	NA	NA
S. Coast	\$ -	\$ -	\$ -	\$ -
S. Oregon	\$ 53,327	\$ 27,662	\$ 106,883	\$ 69,856
Gorge	\$ 52,738	\$ 33,780	\$ 24,186	\$ 49,889
C. Oregon	\$ 47,120	\$ 15,750	\$ 10,500	\$ 14,000
SC Oregon	NA	NA	NA	NA
NE Oregon	NA	NA	NA	NA
E. Oregon	NA	NA	NA	NA
TOTAL	\$ 62,417	\$ 42,271	\$ 106,554	\$ 66,105

Table 5: Average Annual Stormwater SDC Revenue 2019-2022

Twenty-nine cities collected an average of \$66,000 in revenue from stormwater SDCs in FY2022, the smallest average among surveyed SDCs. While “NA” applies to cities that had no SDC’s, several smaller cities in the 1st Quintile listed fee revenue as \$0. This implies that while these cities have SDC’s enacted for stormwater, there have been no new developments within city limits in the last four years. This phenomenon can also be seen in other SDCs as well.

Average Estimated Stormwater SDCs FY2022		
	Residential	Non-Residential
1st Quintile	NA	NA
2nd Quintile	\$254	\$2,540
3rd Quintile	\$1,064	\$8,775
4th Quintile	\$1,187	\$8,684
5th Quintile	\$704	\$5,162
TOTAL	\$927	\$6,503
N. Coast	\$424	\$424
Metro	\$991	\$8,775
N. Willamette	\$1,645	\$9,423
S. Willamette	\$537	\$3,186
C. Coast	NA	NA
S. Coast	NA	NA
S. Oregon	\$793	\$2,600
Gorge	\$806	NA
C. Oregon	\$1,750	\$17,500
SC Oregon	NA	NA
NE Oregon	NA	NA
E. Oregon	NA	NA
TOTAL	\$927	\$6,503

Table 6: Average Estimated Stormwater SDCs FY2022

Eighteen cities charge a stormwater SDC for residential development, and all but four charge for non-residential development. Based on the example developments from Figure 1, sewer SDCs averaged \$927 for residential development and \$6,503 for non-residential development, a decrease of several hundred dollars from 2018 for non-residential averages. Here we see those cities in the 1st Quintile that had no revenue providing estimates for both types of development. The most striking disparity between residential and non-residential development estimates are in the Willamette Valley and Metro regions. The stormwater SDC estimates for non-residential development varied dramatically from the highest (Culver at \$17,500) to the lowest (Cannon Beach at \$424). Fee calculations were most commonly assessed per square footage of the total development footprint or of total impervious area.

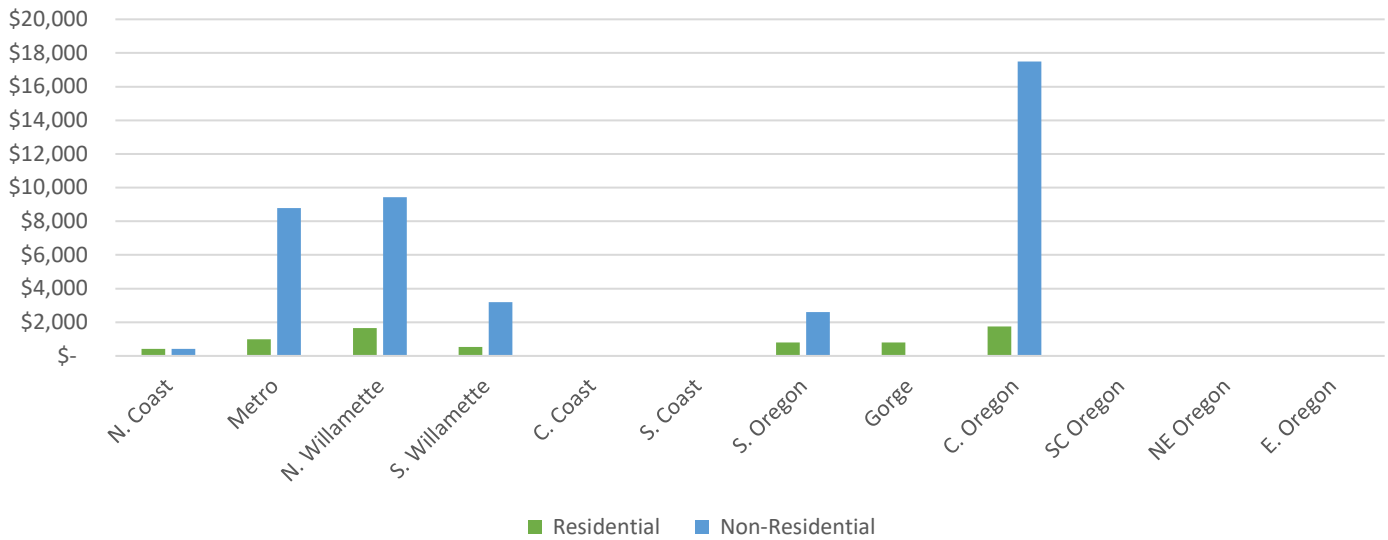


Figure 7: Average Estimated Stormwater SDCs FY2018 by Region

Transportation System Development Charges

Thirty-four cities surveyed utilized transportation SDCs. Comprising 52% of cities, this SDC was most common in cities with a population of more than 3,250. Transportation SDCs were most common in the Metro region, both Willamette Valley regions, and the Central Oregon region. These also happen to be the areas with the largest number of residents commuting daily via public transportation according to the *U.S. Census American Communities Survey*. No city respondent with less than 470 residents has a transportation SDCs.

Transportation SDC - Average Annual Revenue 2019-2022				
Quintile	2019	2020	2021	2022
1st Quintile	NA	NA	NA	NA
2nd Quintile	\$ 17,750	\$ 17,750	\$ 8,218	\$ -
3rd Quintile	\$ 5,973	\$ 10,004	\$ 91,736	\$ 7,781
4th Quintile	\$ 203,189	\$ 137,224	\$ 220,169	\$ 173,996
5th Quintile	\$ 675,107	\$ 795,385	\$ 1,050,609	\$ 989,100
TOTAL	\$ 391,109	\$ 421,717	\$ 580,478	\$ 522,478
Region	2019	2020	2021	2022
N. Coast	\$ 1,776	\$ 1,288	\$ 6,660	\$ 4,470
Metro	\$ 488,054	\$ 600,738	\$ 864,493	\$ 744,976
N. Willamette	\$ 486,062	\$ 432,518	\$ 606,989	\$ 514,485
S. Willamette	\$ 290,229	\$ 128,290	\$ 293,127	\$ 334,347
C. Coast	NA	NA	NA	NA
S. Coast	NA	NA	NA	NA
S. Oregon	\$ 73,590	\$ 71,834	\$ 166,679	\$ 224,122
Gorge	\$ 308,070	\$ 179,464	\$ 209,031	\$ 221,436
C. Oregon	\$ 1,061,878	\$ 1,749,413	\$ 1,790,599	\$ 1,814,121
SC Oregon	NA	NA	NA	\$ 3,590
NE Oregon	\$ -	\$ 1,944	\$ 58,509	\$ 7,783
E. Oregon	NA	NA	NA	NA
TOTAL	\$ 391,109	\$ 421,717	\$ 580,478	\$ 522,478

Table 7: Average Annual Transportation SDC Revenue 2019-2022

These 34 cities with transportation SDCs collected an average of \$522,478 million from these SDCs in FY2022. The larger the city, the more revenue was collected, with cities larger than 10,600 population averaging nearly \$1 million in collection. By contrast, cities with a population between 3,250 and 10,600 residents only averaged \$174,000.

Average Estimated Transportation SDCs FY2022		
	Residential	Non-Residential
1st Quintile	NA	NA
2nd Quintile	\$1,315	\$8,218
3rd Quintile	\$2,094	\$26,955
4th Quintile	\$2,869	\$37,301
5th Quintile	\$5,596	\$111,391
TOTAL	\$3,978	\$73,247
N. Coast		
Metro	\$444	NA
N. Willamette	\$6,590	\$112,751
S. Willamette	\$4,265	\$115,343
C. Coast	\$3,641	\$39,986
S. Coast	NA	NA
S. Oregon	NA	NA
Gorge	\$1,335	\$6,240
C. Oregon	\$2,219	\$2,553
SC Oregon	\$3,474	\$134,726
NE Oregon	\$3,590	NA
E. Oregon	\$1,265	\$8,440
TOTAL	NA	NA

Table 8: Average Estimated Transportation SDCs FY2022

Among the 34 cities that charge a transportation SDC, five do not charge non-residential development. Based on the example structures, transportation SDCs averaged \$3,978 for residential structures and \$73,247 for non-residential development. The average estimate for non-residential development in 2018 was more than \$97,000. While this could be due to specific respondents to either survey, it could also suggest a significant decrease in the charges leveled for transportation. Another possibility is the increase in smaller cities charging this SDC at lower rates, which would reduce the average markedly.

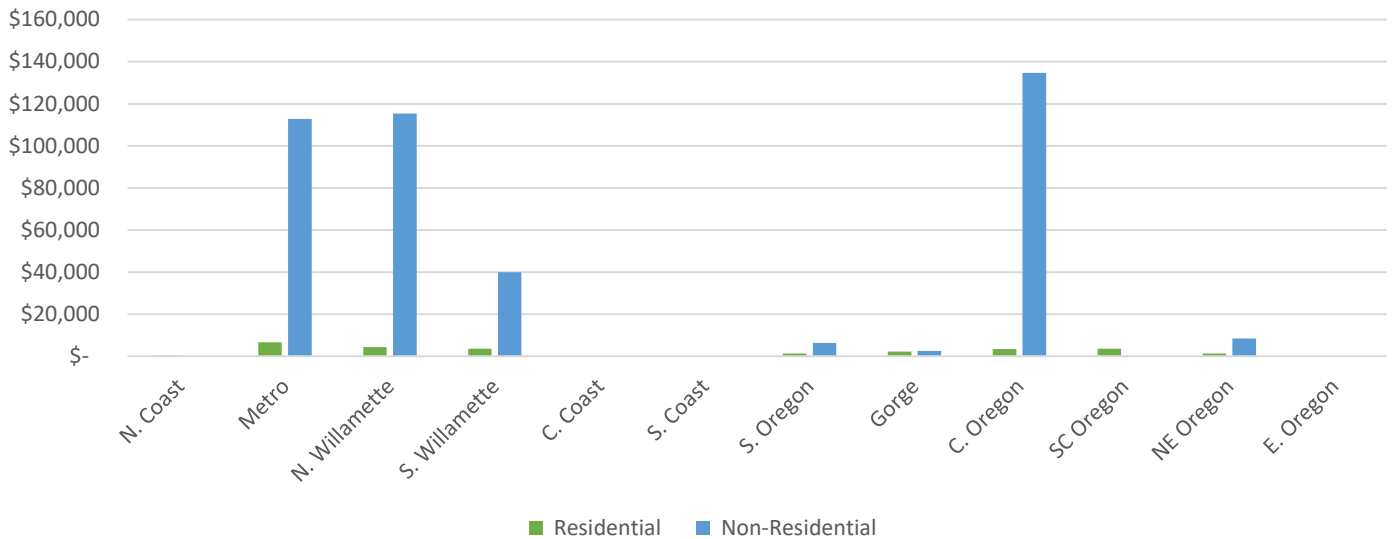


Figure 8: Average Estimated Transportation SDCs FY2018 by Region

Water System Development Charges

Forty-two cities had SDCs for water systems, which constitutes 64% of cities surveyed and was most common in cities larger than 3,250 population. This is the second most common SDC cities collected. Water SDCs were most common in the North Coast, South Willamette, and Central Oregon regions. These findings, taken with the sewer SDC results above, suggest that water and sewer charges are most often charged in tandem with one another.

Water SDC - Average Annual Revenue 2019-2022				
Quintile	2019	2020	2021	2022
1st Quintile	\$ 23,298	\$ 11,323	\$ 11,540	\$ 7,123
2nd Quintile	\$ 2,393	\$ -	\$ 4,610	\$ 53,828
3rd Quintile	\$ 20,203	\$ 16,382	\$ 95,232	\$ 44,774
4th Quintile	\$ 134,893	\$ 181,886	\$ 224,207	\$ 183,021
5th Quintile	\$ 471,258	\$ 557,814	\$ 649,475	\$ 737,227
TOTAL	\$ 241,765	\$ 291,152	\$ 341,976	\$ 338,543
Region				
N. Coast	\$ 50,470	\$ 20,905	\$ 36,662	\$ 33,779
Metro	\$ 622,274	\$ 895,374	\$ 935,418	\$ 1,078,356
N. Willamette	\$ 226,648	\$ 131,390	\$ 361,230	\$ 292,637
S. Willamette	\$ 56,122	\$ 72,748	\$ 113,503	\$ 132,731
C. Coast	NA	NA	NA	NA
S. Coast	\$ -	\$ -	\$ -	\$ -
S. Oregon	\$ 176,273	\$ 44,104	\$ 89,523	\$ 63,581
Gorge	\$ 122,322	\$ 123,311	\$ 114,950	\$ 145,147
C. Oregon	\$ 647,760	\$ 1,008,625	\$ 1,080,213	\$ 918,879
SC Oregon	\$ 139,089	\$ 259,583	\$ 222,025	\$ 298,866
NE Oregon	\$ 17,903	\$ 8,119	\$ 36,886	\$ 57,980
E. Oregon	NA	NA	NA	NA
TOTAL	\$ 241,765	\$ 291,152	\$ 341,976	\$ 338,543

Table 9: Average Annual Water SDC Revenue 2019-2022

An average of \$338,543 was collected from water SDCs in FY2022. This is slightly reduced from the revenue generated in FY2021, but higher than the previous years recorded.

Average Estimated Water SDCs FY2022		
	Residential	Non-Residential
1st Quintile	\$3,235	\$25,880
2nd Quintile	\$3,144	\$2,040
3rd Quintile	\$1,540	\$10,862
4th Quintile	\$3,765	\$15,931
5th Quintile	\$5,353	\$20,027
TOTAL	\$3,941	\$16,817
N. Coast	\$2,714	\$11,079
Metro	\$8,763	\$27,943
N. Willamette	\$4,564	\$27,232
S. Willamette	\$2,772	\$15,029
C. Coast	NA	NA
S. Coast	NA	NA
S. Oregon	\$2,257	\$2,304
Gorge	\$4,803	\$16,241
C. Oregon	\$3,165	\$23,936
SC Oregon	\$8,260	\$26,432
NE Oregon	\$1,522	\$3,120
E. Oregon	NA	NA
TOTAL	\$3,941	\$16,817

Table 10: Average Estimated Water SDCs FY2022

Among 42 cities with residential water SDCs, all but six did not charge for non-residential development. Based on the example structures, water SDCs averaged \$3,941 for residential structures and \$16,817 for non-residential development. Both averages are lower than the previous 2018 estimates by a significant amount; however, the reason for this is unclear. Fee calculations vary significantly in this SDC compared to other development charges, but are most commonly assessed by meter size.

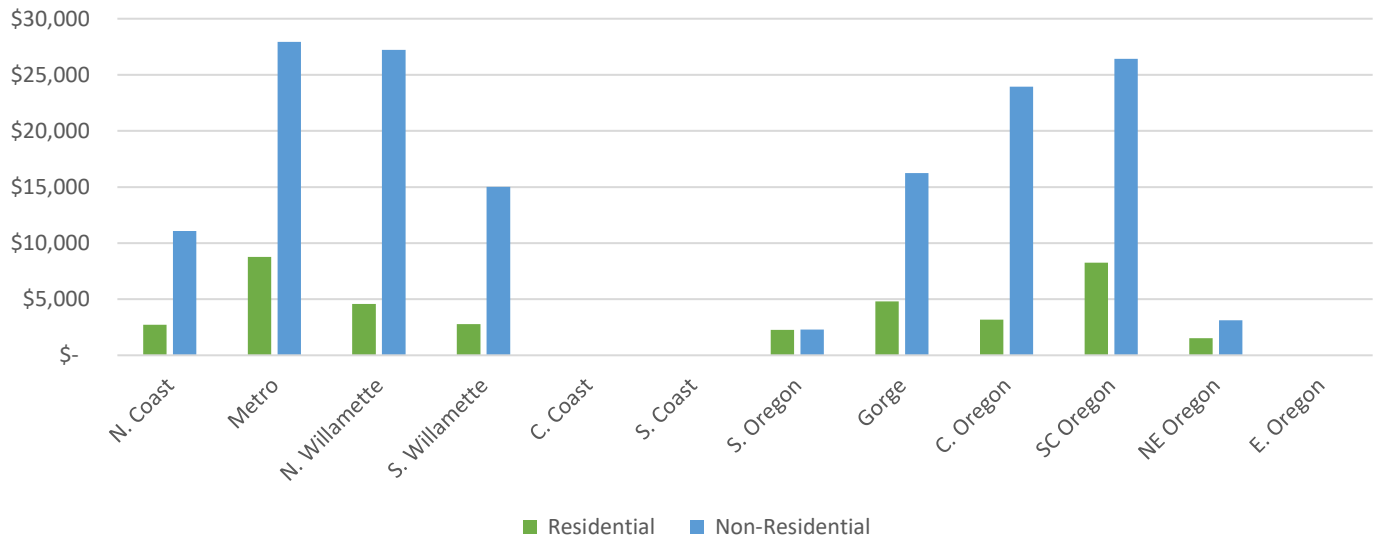


Figure 9: Average Estimated Water SDCs FY2018 by Region

Analysis

Revenue

Unsurprisingly, revenue for SDCs in FY2022 is higher for larger cities. Figure 10 below shows the rapid increase in revenue as a city increases in population. The figure also shows a rapid increase in revenue from the 1st Quintile to the 2nd (this indicates a potential increase in smaller cities adopting SDC's since 2018) and dramatically from the 3rd to the 4th Quintile. The revenue decrease between the 2nd to the 3rd Quintile is likely explained by the small sample size in the 2022 survey.

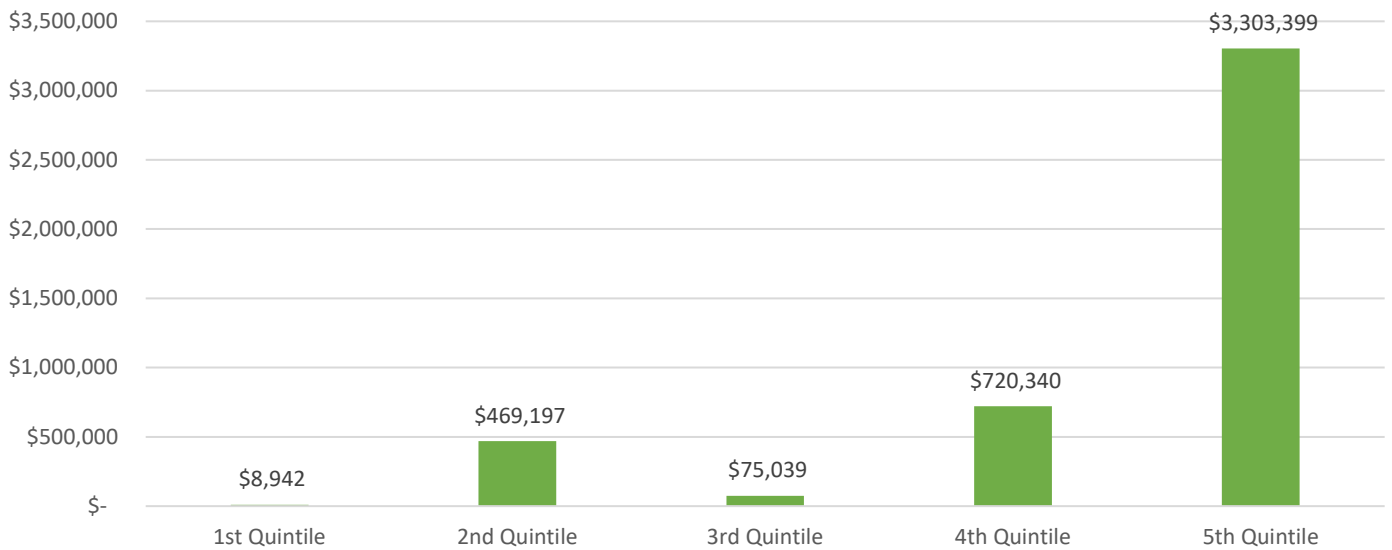


Figure 10: Average SDC Revenue for FY2022 by Population Quintile

Regionally, in Figure 11 below, we see a trend in SDC revenue that parallels the total population in each of these regions. It also speaks to the levels of growth and development currently found in these regions. Note that these regional averages are calculated without Portland as a respondent. Even with this in mind, the averages for regions such as Metro and Central Oregon remain higher than the overall state average in respondent cities. It will be interesting to see if these see significant decline with the cooling of Oregon’s recent rapid population growth.

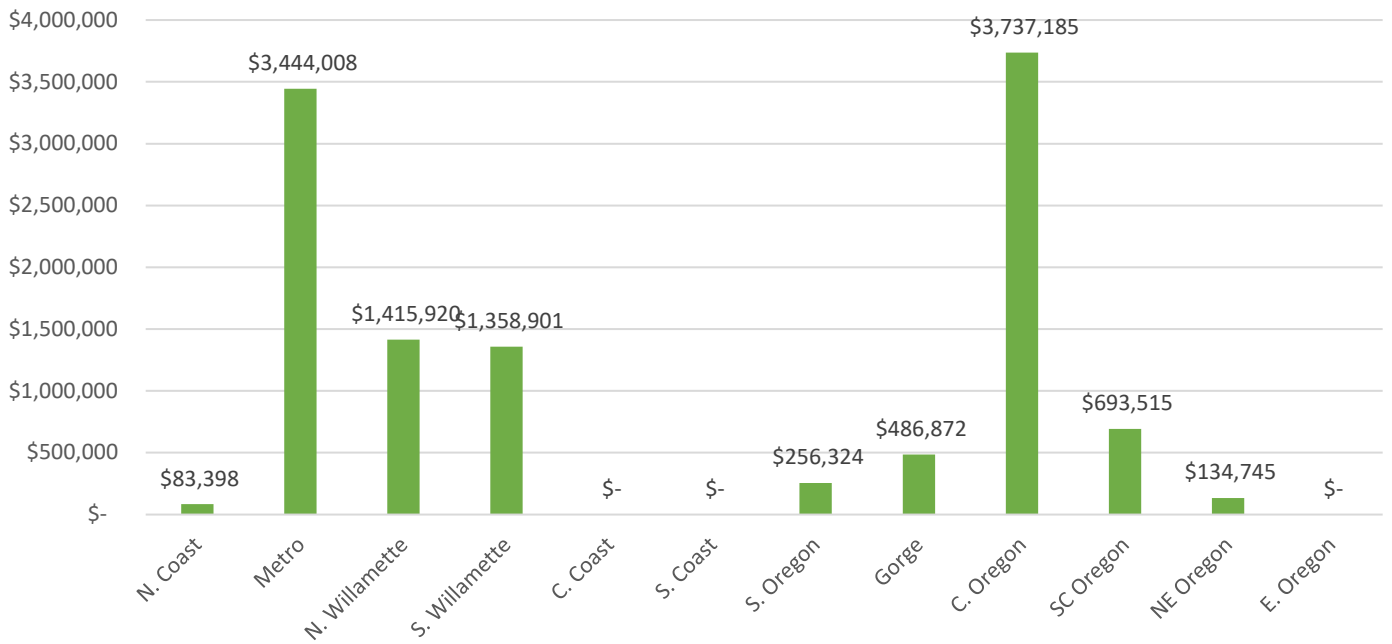


Figure 11: Average SDC Revenue for FY2022 by Region

Fee Estimates

Analysis of SDC fee estimates shows a relatively low variation in overall costs in residential fee estimates. Compared to the variation in non-residential structures, residential fee estimates show far less change in small versus large cities. Only the 2nd Quintile averages show residential being higher on average estimates than non-residential.

Combined Estimated SDC Costs FY2022		
	Residential	Non-Residential
1 st Quintile	\$1,618	\$12,940
2 nd Quintile	\$6,225	\$4,199
3 rd Quintile	\$6,289	\$44,704
4 th Quintile	\$14,140	\$47,542
5 th Quintile	\$17,514	\$135,805
TOTAL	\$9,804	\$56,800
N. Coast	\$4,813	\$16,133
Metro	\$27,628	\$184,503
N. Willamette	\$10,676	\$118,763
S. Willamette	\$11,274	\$45,941
C. Coast	NA	NA
S. Coast	NA	NA
S. Oregon	\$5,330	\$4,081
Gorge	\$15,010	\$30,090
C. Oregon	\$11,720	\$78,663
SC Oregon	\$20,289	\$26,432
NE Oregon	\$5,351	\$10,360
E. Oregon	NA	NA
TOTAL	\$9,804	\$56,800

Table 11: Combined Estimated SDC Costs for FY2022

Figure 12 shows the average estimate of combined SDC costs for FY2022. The figure shows the rate at which cities charge development increases dramatically for non-residential development as a city increases in size. As a city increases in quintile, they increase their residential charge on average \$3,970 for residential but increase \$28,907 for non-residential.

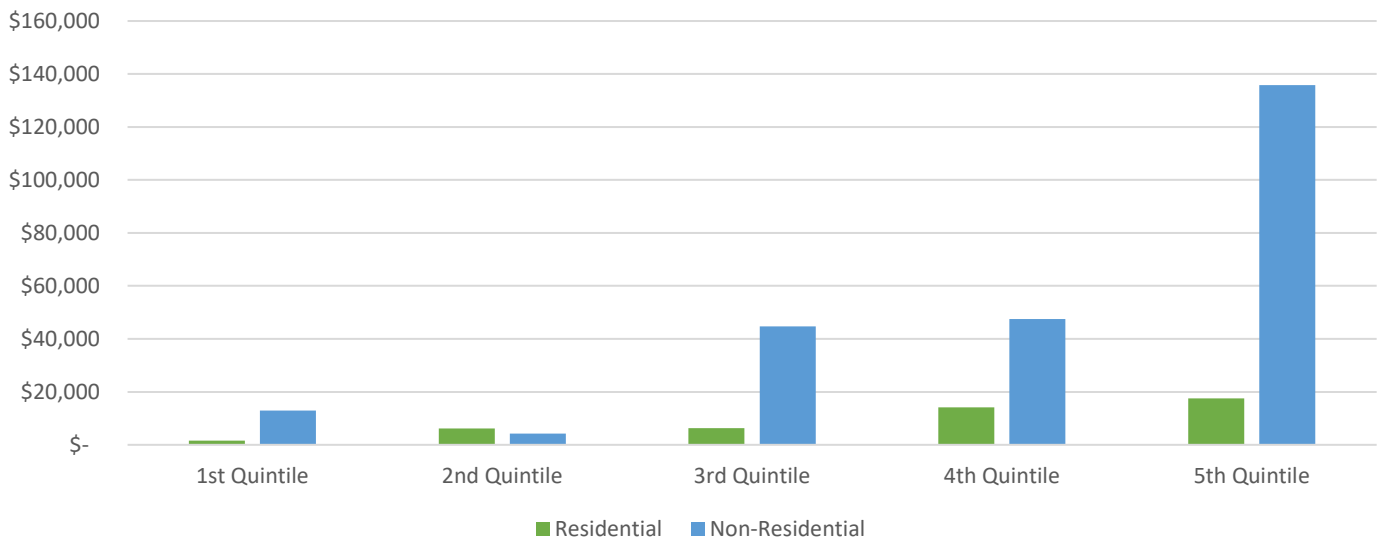


Figure 12: Combined Estimated SDC Costs for FY2018 by Quintile

The below figure shows estimates as trending across all regions. Only in Southern Oregon were residential fee estimates greater than non-residential fee estimates. Across all respondent cities, the mean non-residential estimate was 5.8 times the residential fee estimate. While many regions were close to this ratio, several differed from this average. The highest ratio difference in 2022 was in the North Willamette region with 11.1.

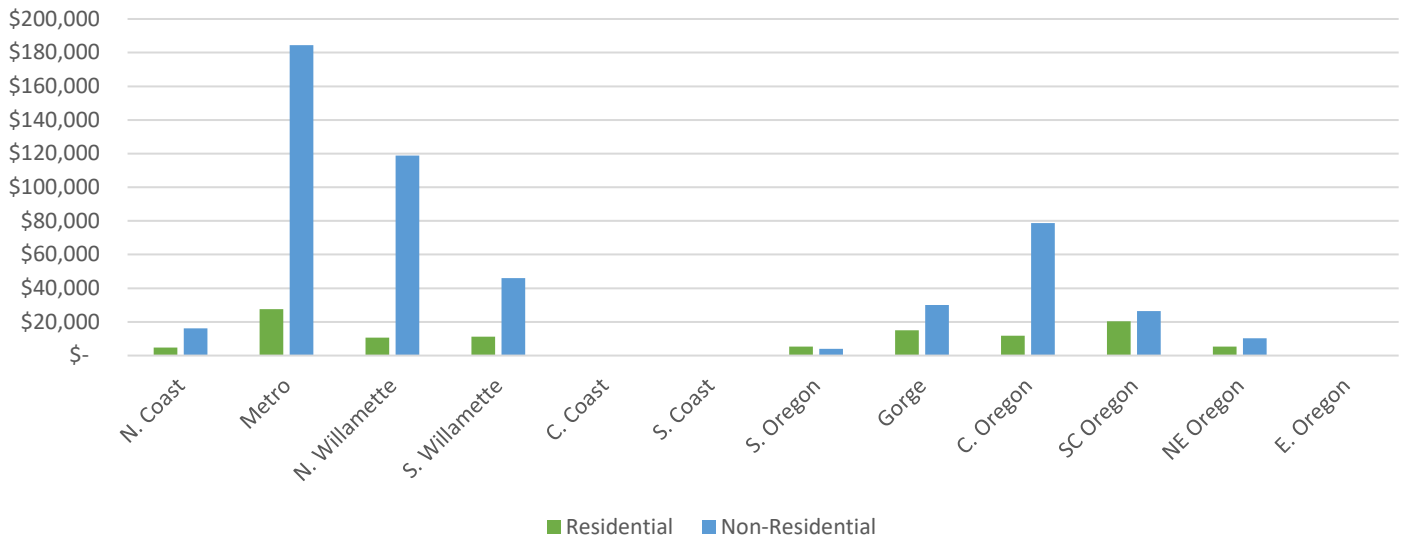
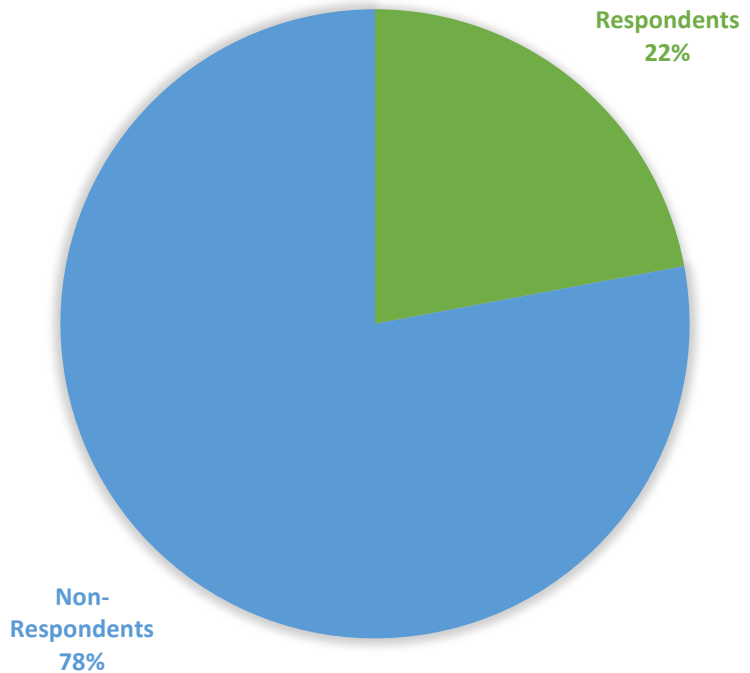


Figure 13: Combined Estimated SDC Costs for FY2022 by Quintile

Survey Methods

This survey was conducted from October 26 to November 18, 2022, and responses were received from 66 cities. These cities represent 667,146 residents, or 22% of the population residing in Oregon cities. The LOC created the survey with Qualtrics and distributed it to city managers, city recorders, and other individuals with positions equal to a city’s chief executive officer. These individuals often relied on support from relevant city staff or forwarded the survey to be completed by that individual.

Population		
	#	%
Quintile		
1 st Quintile	8	12.1%
2 nd Quintile	9	13.6%
3 rd Quintile	16	24.2%
4 th Quintile	15	22.7%
5 th Quintile	18	27.3%
TOTAL	66	
Region		
N. Coast	7	10.6%
Metro	9	13.6%
N. Willamette	8	12.1%
S. Willamette	10	15.2%
C. Coast	2	3.0%
S. Coast	3	4.5%
S. Oregon	4	6.1%
Gorge	4	6.1%
C. Oregon	4	6.1%
SC Oregon	2	3.0%
NE Oregon	10	15.2%
E. Oregon	3	4.5%
TOTAL	66	



Cities are organized into population quintiles or groups of cities representing roughly one-fifth of the 241 total cities. This is done to provide a more accurate comparison of differences among city populations. If the LOC randomly selected cities from each quintile, we would expect 20% to come from each of the five quintiles. Among respondent cities, there was overrepresentation in the North Coast, South Willamette, Central Oregon, and Northeastern Oregon regions. Further, the survey had an underrepresentation of cities in several regions, particularly North Willamette, Central Coast, Southern Oregon, and Eastern Oregon. Cities in the 5th and 3rd population quintiles were overrepresented and cities with a population less than 1,250 were underrepresented in amongst respondents.

Appendix A: Invitation to Participate

2022 System Development Charges Survey

The League needs your help—please complete the Franchise Fee Survey by **the deadline: Friday, November 18th at 5pm.**

Every three years, the League surveys cities about their System Development Charges (SDCs), and data from this survey allows cities to compare SDC rates and provides information about the decisions other cities make.

The legislature recently commissioned a statewide study on SDCs through Oregon Housing and Community Services (OHCS). [OHCS released a draft report on October 18, 2022](#) and is soliciting [public comment](#) until November 1, 2022. Additional information, including a webinar is available on the [OHCS website](#). The report studies SDC's and their role in housing costs throughout the state, provides a comprehensive history of SDC charges across the country, and looks at methodologies throughout the state. The state report is due in December 2022 to the legislature.

As the legislature continues to examine barriers to housing construction, the data gained through the League's SDC survey is more important than ever to ensure any state policy discussions are supported by accurate information.

SDCs are a critical tool for cities to pay for capacity within infrastructure to accommodate new users. These fees are set by each city and paid by new construction. The fees either reimburse a city for the capacity it built to:

- accommodate the new users;
- to pay for planned development of that capacity;
- or a combination thereof.

A city adopts an SDC using a method that considers all future city projects. The city can also reduce the SDC below the actual cost to build when it adopts the fee. For these reasons, SDCs are a complicated balance of infrastructure costs and the desire for city growth. This survey also shows the consideration that cities take when adopting these fees.

This survey should take one hour or more to complete.

Please Note: LOC surveys, unless in special cases, are always sent to the highest staff member for each member city. Please forward to the relevant staff member best suited to answer these questions.

Survey Link Below:

https://orcities.co1.qualtrics.com/jfe/form/SV_9AcDc9bDKseJZdA

Thank you in advance for your participation and quick response. If you have any questions regarding the survey, please contact:

Paul Aljets at:

research@orcities.org



Ariel Nelson, *Lobbyist*
cell: 541-646-4180
1201 Court St. NE, Suite 200, Salem, OR 97301-4194
www.orcities.org



Appendix B: Survey Instrument

2022 System Development Charges Survey

Q1 2022 System Development Charges Survey

Q2 Please fill out the following questions.

- City Name: (1) _____
- Your Name: (2) _____
- Your Title: (3) _____
- Email Address: (4) _____

Q3 Does your city currently collect any System Development Charges (SDC's) for the city, county, or special district?

- Yes (1)
- No (2)
- Unsure (3)

Skip To: Q8 If Does your city currently collect any System Development Charges (SDC's) for the city, county, or... = No

Display This Question:

If Does your city currently collect any System Development Charges (SDC's) for the city, county, or... = Yes

Q4 Please provide a link to your last annual SDC accounting (If available online)

Q5 Which of the following SDCs does your city currently collect? (Check all that Apply)

Only check if your city is collecting the revenue on behalf of your city or another governmental entity. Do not check if your city does not collect the revenue (e.g. the county collects a regional transportation SDC, or a municipal utility board collects a separate SDC).

- Parks SDC (1)
- Sewer SDC (2)
- Stormwater SDC (3)
- Transportation SDC (4)
- Water SDC (5)

Q6 Does your city receive any SDC revenue that is collected by another governmental entity (e.g. a county transportation SDC)?

- Yes (Please Specify) (1) _____
- No (2)
- Unsure (3)

Q7 Do any other governmental entities levy and collect an SDC on development projects within the city (e.g. a special district that collects sewer SDC)?

- Yes (Please Specify) (1) _____
- No (2)
- Unsure (3)

Q8 Does your city charge a construction excise tax or other construction fee based on square footage or building valuation of the structure?

- Yes (1)
- No (2)
- Unsure (3)

Display This Question:
If Does your city charge a construction excise tax or other construction fee based on square footage... = Yes

Q9 What type of projects are the fees collected from your construction excise tax used for?

Display This Question:
If Does your city charge a construction excise tax or other construction fee based on square footage... = Yes

Q10 Please list the fee rate for your Construction Excise Tax

Q11 SDC Rates -Parks

Q12 Please indicate whether the Parks SDC is retained by the city or is collected by another entity (such as a special district).

Next, please list the annual revenue collected from this SDC for the last four fiscal years.

	Total Annual Revenue (\$)			
	FY2019 (1)	FY2020 (2)	FY2021 (3)	FY 2022 (4)

City Revenue (1)				
Collected for Other Entity (Please Specify) (2)				
Other Entities Collect in the City (3)				

Q13 Parks SDC is charged for (Check all that Apply)

- Residential Development (1)
- Non-Residential Development (2)

Q14 Parks SDC is comprised of (Check all that Apply) :

- Improvement Fee (1)
- Reimbursement Fee (2)
- Other Fee (administration, land acquisition, etc.) (3)

Q16 Please provide an average Parks SDC for the above examples

	Improvement Fee (1)	Reimbursement Fee (2)	Other Fee 1 (3)	Other Fee 2 (4)
Example Residential (1)				
Example Non-Residential (2)				

Q17 Please describe the basis of your fee (e.g. square footage) and any other calculation notes:

Q18 How are your SFR charges applied?

- Uniform (1)
- Scaled (2)
- Other (Please Specify) (3) _____

Display This Question:

If How are your SFR charges applied? = Scaled

Q19 How is this scale rate determined?

- Square Footage (1)
- Fixture Units (2)
- Other (Please Specify) (3) _____

Q20 Is the adopted SDC charge less than the fee calculated using your methodology?

- Yes (1)
- No (2)
- Unsure (3)

Q21 What year was the Parks SDC fee last updated?

Q22 What year is the next planned Parks SDC Update?

Q23 SDC Rates -Sewer

Q24 Please indicate whether the Sewer SDC is retained by the city or is collected by another entity (such as a special district).

Next, please list the annual revenue collected from this SDC for the last four fiscal years.

	Total Annual Revenue (\$)			
	FY2019 (1)	FY2020 (2)	FY2021 (3)	FY2022 (4)
City Revenue (1)				
Collected for Other Entity (2)				
Other Entities Collect in the City (3)				

Q25 Sewer SDC is charged for (Check all that Apply)

- Residential Development (1)
- Non-Residential Development (2)

Q26 Sewer SDC is comprised of (Check all that Apply) :

- Improvement Fee (1)
- Reimbursement Fee (2)
- Other Fee (administration, land acquisition, etc.) (3)

Q28 Please provide an average Sewer SDC for the above examples

	Improvement Fee (1)	Reimbursement Fee (2)	Other Fee 1 (3)	Other Fee 2 (4)
Example Residential (1)				
Example Non-Residential (2)				

Q29 Please describe the basis of your fee (e.g. square footage) and any other calculation notes:

Q30 How are your SFR charges applied?

- Uniform (1)
- Scaled (2)
- Other (Please Specify) (3) _____

Display This Question:
If How are your SFR charges applied? = Scaled

Q31 How is this scale rate determined?

- Square Footage (1)
- Fixture Units (2)
- Other (Please Specify) (3) _____

Q32 Is the adopted SDC charge less than the fee calculated using your methodology?

- Yes (1)
- No (2)
- Unsure (3)

Q33 What year was the Sewer SDC fee last updated?

Q34 What year is the next planned Sewer SDC Update?

Q35 SDC Rates -Stormwater

Q36 Please indicate whether the Stormwater SDC is retained by the city or is collected by another entity (such as a special district).

Next, please list the annual revenue collected from this SDC for the last four fiscal years.

	Total Annual Revenue (\$)			
	FY2019 (1)	FY2020 (2)	FY2021 (3)	FY2022 (4)
City Revenue (1)				
Collected for Other Entity (2)				
Other Entities Collect in the City (3)				

Q37 Stormwater SDC is charged for (Check all that Apply)

- Residential Development (1)
- Non-Residential Development (2)

Q38 Stormwater SDC is comprised of (Check all that Apply) :

- Improvement Fee (1)
 - Reimbursement Fee (2)
 - Other Fee (administration, land acquisition, etc.) (3)
-

Q40 Please provide an average Stormwater SDC for the above examples

	Improvement Fee (1)	Reimbursement Fee (2)	Other Fee 1 (3)	Other Fee 2 (4)
Example Residential (1)				
Example Non-Residential (2)				

Q41 Please describe the basis of your fee (e.g. square footage) and any other calculation notes:

Q42 How are your SFR charges applied?

- Uniform (1)
- Scaled (2)
- Other (Please Specify) (3) _____

Display This Question:

If How are your SFR charges applied? = Scaled

Q43 How is this scale rate determined?

- Square Footage (1)
- Fixture Units (2)
- Other (Please Specify) (3) _____

Q44 Is the adopted SDC charge less than the fee calculated using your methodology?

- Yes (1)
- No (2)
- Unsure (3)

Q45 What year was the Stormwater SDC fee last updated?

Q46 What year is the next planned Stormwater SDC Update?

Q47 SDC Rates -Transportation

Q48 Please indicate whether the Transportation SDC is retained by the city or is collected by another entity (such as a special district).

Next, please list the annual revenue collected from this SDC for the last four fiscal years.

	Total Annual Revenue (\$)			
	FY2019 (1)	FY2020 (2)	FY2021 (3)	FY2022 (4)

City Revenue (1)				
Collected for Other Entity (2)				
Other Entities Collect in the City (3)				

Q49 Transportation SDC is charged for (Check all that Apply)

- Residential Development (1)
- Non-Residential Development (2)

Q50 Transportation SDC is comprised of (Check all that Apply) :

- Improvement Fee (1)
- Reimbursement Fee (2)
- Other Fee (administration, land acquisition, etc.) (3)

Q52 Please provide an average Transportation SDC for the above examples

	Improvement Fee (1)	Reimbursement Fee (2)	Other Fee 1 (3)	Other Fee 2 (4)
Example Residential (1)				
Example Non-Residential (2)				

Q53 Please describe the basis of your fee (e.g. square footage) and any other calculation notes:

Q54 How are your SFR charges applied?

- Uniform (1)
- Scaled (2)
- Other (Please Specify) (3) _____

Display This Question:

If How are your SFR charges applied? = Scaled

Q55 How is this scale rate determined?

- Square Footage (1)
- Fixture Units (2)
- Other (Please Specify) (3) _____

Q56 Is the adopted SDC charge less than the fee calculated using your methodology?

- Yes (1)
- No (2)
- Unsure (3)

Q57 What year was the Transportation SDC fee last updated?

Q58 What year is the next planned Transportation SDC Update?

Q59 SDC Rates -Water

Q60 Please indicate whether the Water SDC is retained by the city or is collected by another entity (such as a special district).

Next, please list the annual revenue collected from this SDC for the last four fiscal years.

	Total Annual Revenue (\$)			
	FY2019 (1)	FY2020 (2)	FY2021 (3)	FY2022 (4)
City Revenue (1)				
Collected for Other Entity (2)				
Other Entities Collect in the City (3)				

Q61 Water SDC is charged for (Check all that Apply)

- Residential Development (1)
- Non-Residential Development (2)

Q62 Water SDC is comprised of (Check all that Apply) :

- Improvement Fee (1)
- Reimbursement Fee (2)
- Other Fee (administration, land acquisition, etc.) (3)

Q64 Please provide an average Water SDC for the above examples

	Improvement Fee (1)	Reimbursement Fee (2)	Other Fee 1 (3)	Other Fee 2 (4)
Example Residential (1)				
Example Non-Residential (2)				

Q65 Please describe the basis of your fee (e.g. square footage) and any other calculation notes:

Q66 How are your SFR charges applied?

- Uniform (1)
- Scaled (2)
- Other (Please Specify) (3) _____

Display This Question:

If How are your SFR charges applied? = Scaled

Q67 How is this scale rate determined?

- Square Footage (1)
- Fixture Units (2)
- Other (Please Specify) (3) _____

Q68 Is the adopted SDC charge less than the fee calculated using your methodology?

- Yes (1)
- No (2)
- Unsure (3)

Q69 What year was the Water SDC fee last updated?

Q70 What year is the next planned Water SDC Update?

Q71 Does your city charge more for a Water SDC on a residential unit with a 1-inch meter?

- Yes (1)
- No (2)
- Unsure (3)

Display This Question:

If Does your city charge more for a Water SDC on a residential unit with a 1-inch meter? = Yes

Q72 Please provide an average Water SDC for the above residential example IF it had a 1" meter.

	Improvement Fee (1)	Reimbursement Fee (2)	Other Fee 1 (3)	Other Fee 2 (4)
Example Residential (with 1" Meter) (1)				

Display This Question:

If Does your city charge more for a Water SDC on a residential unit with a 1-inch meter? = Yes

Q73 Does your city waive or reduce the Water SDC if extra capacity for a 1" meter is intended for a home fire suppression sprinkler system?

- Yes (1)
- No (2)
- Unsure (3)

Display This Question:

If Does your city currently collect any System Development Charges (SDC's) for the city, county, or... = Yes

Q74 Has your city provided any SDC waivers, reductions, or other payment accommodations in the last four years?

- Yes (1)
- No (2)
- Unsure (3)

Display This Question:

If Has your city provided any SDC waivers, reductions, or other payment accommodations in the last f... = Yes

Q75 What type of waiver, reduction or accommodation has your city implemented in the last four years? (Check all that Apply)

- Temporary SDC Moratorium (SDCs not collected on all projects) (1)
 - SDC Waivers (SDCs waived on certain projects) (2)
 - SDC Reductions (Some SDC revenue is collected - partial waiver or fee amount reduction) (3)
 - SDC Payments Phased-In (SDCs are phased-in over a period of time) (4)
 - SDC Payments Delayed (SDCs delayed until a later date, such as the time of occupancy) (5)
 - SDC Repeal (repeal of SDC ordinance) (6)
 - Other Accommodation (Please Specify) (7)
-

Display This Question:

If Has your city provided any SDC waivers, reductions, or other payment accommodations in the last f... = Yes

Q76 Waivers, reductions or accommodations have been given to the following SDC types (check all that apply):

- Parks (1)
- Sewer (2)
- Transportation (3)
- Water (4)
- Stormwater (5)

Display This Question:

If Has your city provided any SDC waivers, reductions, or other payment accommodations in the last f... = Yes

Q77 Waivers, reductions or accommodations have been given to the following types of development (check all that apply):

- Residential (1)
- Commercial (2)

Display This Question:

If Has your city provided any SDC waivers, reductions, or other payment accommodations in the last f... = Yes

Q78 What was the purpose and desired goal of the waivers, reductions or accommodation?

Display This Question:

If Has your city provided any SDC waivers, reductions, or other payment accommodations in the last f... = Yes

Q79 What are the qualifications for a project to receive a waiver or reduction?

Q80 This concludes the survey. Do you have any additional questions or comments?

Appendix D: Population Quintile and Regional Breakdowns

Quintile Ranges	# Cities	% Cities
1st Quintile <470	48	19.8%
2nd Quintile 471-1300	48	19.8%
3rd Quintile 1301-3250	48	19.8%
4th Quintile 3251-10200	49	20.2%
5th Quintile >10200	48	19.8%
Small Cities <5000	165	68.2%
Top 5 % >40000	12	5.0%

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12	TOTALS
	N. Coast	Metro	N. Willamette	S. Willamette	C. Coast	S. Coast	S. Oregon	Gorge	C. Oregon	SC Oregon	NE Oregon	E. Oregon	
1st Quintile	3	1	4	3	0	0	2	8	2	2	9	14	48
2nd Quintile	2	4	5	7	2	2	6	4	2	3	8	3	48
3rd Quintile	8	2	8	3	3	4	5	1	3	1	6	4	48
4th Quintile	5	5	11	8	3	4	6	1	1	0	3	2	49
5th Quintile	1	19	7	5	1	1	5	1	3	1	3	1	48
TOTALS	19	31	35	26	9	11	24	15	11	7	29	24	241
	8%	13%	15%	11%	4%	5%	10%	6%	5%	3%	12%	10%	100%



OREGON SYSTEM DEVELOPMENT CHARGES STUDY: WHY SDCs MATTER AND HOW THEY AFFECT HOUSING



December 2022

*Prepared for Oregon Housing and
Community Services (OHCS)*

Acknowledgements

This report was prepared by ECONorthwest on behalf of Oregon Housing and Community Services (OHCS) with funding from the 2021 Oregon State Legislature and substantial contributions from FCS GROUP and Galardi Rothstein Group. Staff and project team members are grateful to the many cities, counties, special districts, and housing developers who participated in focus groups and interviews and/or provided written commentary to inform this study.

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Executive Summary

In 2021, the Oregon legislature passed House Bill 3040 (HB 3040), directing Oregon Housing and Community Services (OHCS) to prepare a study of System Development Charges (SDCs)—a form of one-time impact fees charged on new development to help pay for infrastructure that serves or provides capacity for growth. The legislature requested that the study cover the history of the charges, methodologies for setting the fees, recent trends in fee levels, how the fees relate to other development costs, and how they ultimately affect the cost and production of housing. The findings from this study can inform future policy discussions related to SDCs, but the legislature’s direction for this study did not include making policy recommendations.

OHCS contracted with ECONorthwest and subcontractors FCS GROUP and Galardi Rothstein Group to undertake this report. The team drew its findings from reviews of national and local studies; surveys of cities, counties, and special districts; interviews and focus groups with local government officials and housing developers; original data analyses; and decades of experience conducting SDC studies, analyzing residential development, and evaluating infrastructure funding mechanisms.

Key Findings

SDCs have become an essential funding mechanism in many Oregon communities, for practical, political, and policy reasons.

- **SDCs are increasing faster than inflation due to lack of alternative funding and increasing infrastructure costs.** Over the last several decades, flat or declining state and federal infrastructure spending, limitations on property taxes, and increasing costs for operations, maintenance, and regulatory compliance have increased dependence on SDCs and other local revenue sources. On average, both SDCs and water and sewer utility rates have increased faster than construction costs over the past 10-15 years. Even so, many jurisdictions report falling behind in their ability to pay for infrastructure, especially in the last few years as costs have escalated so quickly that annual indexed adjustments have not kept up.
- **SDCs are a critical component of local funding for infrastructure needed to support growth.** SDCs can allow communities to build the infrastructure needed to accommodate orderly growth, making them an important part of Oregon’s growth management system. They can benefit both developers (by funding investments that make development possible and distributing costs among multiple benefitting parties) and existing residents (by reducing reliance on utility rates, bonds, and other community-wide funding mechanisms that can disproportionately impact lower-income households). Further, the requirements associated with other local funding sources for capital improvements (e.g., voter approval for general obligation bonds) can increase jurisdictions’ reliance on SDCs. However, small, slow-growing communities tend to use

SDCs less, as they have less need to increase infrastructure capacity, few costs attributable to growth, and little development that would generate revenue.

- **The variation in SDC rates across the state reflects differences in local needs, cost factors, and priorities.** Oregon’s SDC Act and the broader legal context provide guardrails to ensure SDCs recover an equitable share of costs of capacity, while also providing flexibility to tailor the approach to community values and local circumstances. Local differences in funding choices, system needs, and construction and land costs can lead to differences in the total costs that SDCs are expected to cover. Local choices related to how costs are linked to development impacts can also lead to differences in SDC rates for similar development in different communities. Further, because SDCs are adopted by local elected officials, some communities intentionally keep SDC rates down to avoid discouraging development, either by discounting the calculated charges or reducing the size of the capital improvements list.

SDCs also increase the cost of building new housing in ways that can skew housing development towards higher-cost homes and can impact buyers and renters. SDCs likely account for anywhere from just under 2 percent to nearly 13 percent of total development costs for housing in Oregon, depending on the housing type, SDC rates, other cost factors, and market conditions. There are many other factors driving home prices, rents, and development costs—SDCs are just one contributor that impacts the market by influencing development decisions. In an accounting sense, housing developers pay the SDC (e.g., write a check), but the cost is typically shared with other actors, including landowners, homebuyers, renters, and (rarely) investors. A large body of evidence, including new analysis for Oregon, finds that higher SDCs/impact fees tend to be associated with higher home prices, though there are multiple possible explanations. This study identifies several ways that SDC costs may affect buyers and renters:

- **Smaller and lower-cost housing units tend to be more affected by SDCs than larger and more expensive homes.** SDCs typically account for a larger share of total costs for smaller homes, middle housing, and moderately priced apartments. These housing types are often targeted to moderate-income households who may not be able to absorb higher prices or rents, making them sensitive to small increases in development costs. They often also have lower system impacts than larger homes. *Scaling fees for smaller units based on lower demand for infrastructure (as a growing number of communities are doing) can even out financial impacts across housing types and sizes, but only if implemented across multiple infrastructure systems at a meaningful discount.*
- **SDCs can combine with other factors to exacerbate challenges for housing production and affordability,¹ even if they are not the primary driver.**
 - **Communities with lower home prices and rents tend to be more sensitive to SDCs (and other development costs).** The market may not support passing costs on to

¹ As used in this report, *housing affordability* means households’ ability to find housing within their financial means, with or without public support or restrictions in place, across a range of income levels.

buyers/renters and lower land values mean less room to absorb SDCs or other costs through land price negotiations. Over time, lack of housing production can lead to higher rents and home prices for existing housing, which can indirectly affect buyers and renters. However, SDC rates in these communities tend to be lower. *Keeping SDC rates low in areas with lower home prices and rents can reduce barriers to housing production, if key projects to enable growth can still be funded.*

- **Communities with strong demand and limited new housing supply are more likely to see rising costs—including SDCs—shift to homebuyers and renters.** Higher SDCs in this context likely reinforce other market factors—including high land costs and demand from higher-income households—that encourage more expensive housing development. Higher land and construction costs can contribute to both higher SDC rates and higher home prices/rents. In addition, some infrastructure investments (e.g., parks) can serve as amenities, and affluent buyers and renters may choose to pay more to live in places that are making more investments in that infrastructure, though low and moderate-income households may not have this option. Keeping SDC rates low overall may be neither politically palatable nor aligned with infrastructure needs, but when SDC rates are both relatively high and relatively flat among different types and sizes of housing, it can increase the barriers to building smaller and lower-cost housing. For medium or large single-family homes in moderate and high-cost areas, ECONorthwest’s analysis suggests that SDCs typically represent a relatively small percentage of costs (e.g., 2 to 7 percent), and reductions would likely have at most a modest impact on new home prices. *However, for smaller and lower-cost units in moderate and high-cost areas, evidence from a few Oregon communities suggests a major reduction or elimination of SDCs can sometimes enable development that would not be financially feasible otherwise.*
- **SDCs on affordable housing development² can increase the difficulty of securing adequate funding for the development and, even as a small percentage of total development costs, likely consume millions of dollars per year in funding for affordable housing statewide.** Smaller affordable housing developments and those with less traditional funding sources (which often includes affordable homeownership projects) are more impacted. *SDC exemptions or reductions for affordable housing development can allow funding for affordable housing to stretch further and reduce obstacles to affordable housing development, provided the needed infrastructure can still be funded.*

Some jurisdictions have implemented SDC measures to support affordability, but broader adoption is hindered by administrative, legal, and financial concerns. SDCs must remain rooted in recovering an equitable share of costs based on the impacts of the development, but jurisdictions have discretion over many choices that can affect how and to what extent SDCs impact housing development. Many jurisdictions are concerned about housing affordability, and a growing number have implemented new SDC rate structures and policies in response.

² As used in this report, *affordable housing* means income and/or rent-restricted housing that is affordable to households earning a certain income level (e.g., at or below 80 percent of area median income).

Some have adopted scaled rates that account for lower demand from smaller dwelling units, some offer policy-based exemptions for affordable housing, and some allow developers to defer paying SDCs until construction is complete rather than before it begins. Other jurisdictions express serious reservations about some of these measures, and each has trade-offs to consider.

- **Scaled SDC rates for smaller units** are typically tied to evidence of lower development impacts, which is well within the discretion allowed under statute. Scaling reduces costs for smaller units while remaining revenue neutral for the jurisdiction, but it can increase complexity for both applicants and jurisdictions. *The primary barriers to broader adoption include the effort associated with a methodology update, collecting and analyzing supporting data, and updating permitting systems to collect the necessary information.*
- **SDC waivers** can offer substantial savings for affordable housing development, but there are differing views on their validity. Some practitioners believe that jurisdictions implicitly have the discretion to exempt certain classes of development, including affordable housing. Others see legal risks if lost funds are not paid from another source because the issue is not explicitly addressed in statute,³ and the loss of revenue may prevent an agency from completing the project list upon which the SDCs were calculated. *Overcoming these concerns would require clear legal authority and ways to mitigate lost revenue.*
- **SDC deferrals** reduce financing costs for developers, which can be 10 to 25 percent of the SDC amount. While the financial impacts for jurisdictions are minimal, many expressed concerns about their ability to collect fees after permits are issued, increasing administrative cost and complexity, and, in some cases, delaying revenue collection. Those that have implemented deferrals reported mixed results: Some saw a substantial increase in administrative effort, while for others this was minor. Major challenges with nonpayment were rare (and mostly linked to commercial development) but time-consuming to resolve. This suggests that there is potential for more jurisdictions to adopt administrative approaches to deferrals that have worked well for others, but that the level of effort may depend on jurisdiction-specific systems and practices and may not allow for a one-size-fits-all approach. *Broader adoption may require additional focused discussions with stakeholders to identify a range of approaches to administering deferrals that could work for jurisdictions of different sizes and staffing levels and additional/better mechanisms for enforcement that reduce the risk of (and costs associated with) nonpayment.*

Difficulty estimating SDC costs up front can create challenges for multifamily, affordable housing, middle housing, and greenfield development. Developers value being able to estimate total SDC costs with some certainty during early project budgeting, but this is difficult for some types of development. Multifamily SDCs can be especially hard to calculate early in a

³ Oregon's SDC statutes emphasize that new users should contribute no more than an equitable share of costs but say little about assigning costs to individual developments. Other state statutes make clear that jurisdictions may waive SDCs for affordable multifamily housing in at least some circumstances, but they do not clearly address whether "backfilling" lost revenue is required.

project because they are often not a flat rate per unit. When they exceed initial estimates after financing and budgets are set, this can cause major challenges, especially for affordable housing. Rates for middle housing types are often not listed or defined. Policies related to credits for building SDC-eligible projects, which is common for greenfield development, can also be difficult to discern. While most jurisdictions provide some information about SDCs online, many do not yet fully comply with recent updates to statute increasing requirements for transparency and may not be aware of the change. *SDC rate structures and approach to SDC changes can lead to variability between initial estimates and final SDC costs, but uncertainty for middle housing SDCs and SDC credit policies could be addressed through clearer information for applicants.*

Conclusion

At their core, SDCs are a funding mechanism; reducing SDC costs broadly in the interest of housing production and affordability would require greater availability of other funding for infrastructure that does not increase development costs or burden low-income households.

The jurisdictions and special districts that provide water, sewer, stormwater, transportation, and park infrastructure have a clear mandate to keep those systems functioning and provide sufficient capacity for planned development. Given fiscal constraints, SDCs are likely to remain central to local funding for infrastructure, and most stakeholders agree that development should contribute to growth-related infrastructure costs at some level. SDCs provide a consistent and relatively predictable mechanism for development contributions to growth-related costs, and they can support housing production by funding capital projects needed for growth. However, the equity implications of relying on SDCs to fund eligible infrastructure projects are mixed. Residential SDCs can be regressive, with higher impacts on lower-cost housing (especially when applied more uniformly to all housing), but some alternatives (e.g., raising utility rates) can also be regressive and directly impact lower-income households. *Expanding other funding mechanisms or increasing state funding for infrastructure with a focus on mitigating impacts to affordable and lower-cost housing could help even the playing field for lower-cost housing development while retaining SDCs as a key funding source for infrastructure to serve growth.*

Even in the current fiscal context, jurisdictions can take steps to mitigate the impacts of SDCs on housing production and affordability. SDC rates must relate to impacts, which limits jurisdictions' ability to align them with housing costs. However, some jurisdictions have implemented measures that offer improvements at the margins. This includes changes to rate structures (e.g., scaling by unit size), policies (e.g., allowing discounts or waivers for regulated affordable housing), and administrative practices (e.g., allowing deferral to certificate of occupancy for some residential development, offering clear SDC estimates for more housing types). All have trade-offs and can increase administrative costs, suggesting that these changes may not be appropriate in the same form for all communities. Still, broader implementation of these measures could yield a meaningful change. *Jurisdictions can identify locally appropriate measures to reduce or mitigate SDCs' impact on housing development during SDC methodology updates, housing production strategies, infrastructure funding plans, or other policy discussions related to infrastructure and/or housing.*

Introduction

In 2021, the Oregon legislature passed House Bill 3040 (HB 3040), directing Oregon Housing and Community Services (OHCS) to prepare a study of System Development Charges (SDCs)—one-time fees charged on new development to help pay for existing and planned infrastructure to serve growth. The legislature requested that the study cover the history of the charges, methodologies for setting the fees, recent trends in fee levels, how the fees relate to other development costs, and how they ultimately affect the cost and production of housing. OHCS contracted with ECONorthwest and subcontractors FCS GROUP and Galardi Rothstein Group to undertake this study. This report’s framework is drawn from the legislative request.

This report is not intended to pit SDCs against housing production or affordability, but rather to clarify how they interact. The scope of this study, as established in HB 3040, does not include a comprehensive evaluation of local funding mechanisms for infrastructure, cost drivers for housing development, the impact of housing production on affordability, or strategies to reduce the cost of housing development or support housing production. Other recent and on-going studies address some of these topics in greater detail;⁴ others may need further study. Furthermore, HB 3040 did not direct the study to include recommendations, though the study’s findings provide a fact base to inform consideration of related future policy choices as they emerge in the legislative process.

What Is a System Development Charge?

SDCs are one-time fees paid by new development (or, in some cases, re-development) at the time of development. They are intended to capture an equitable share of the cost of “system” capacity—large backbone facilities that provide service system-wide or to a portion of the service area, with extra capacity beyond an individual development’s needs. They can be based on the value of existing facility capacity available to serve growth and/or the cost of building future facilities to provide additional capacity to serve growth.

This report provides a statewide look at how SDC rates are established, the role they play in funding infrastructure, and how they impact housing cost and production. In addition to research, data collection, and analysis by the consultant team, this report is based on input from stakeholders, including a wide range of service providers—cities, counties, and special districts—that charge SDCs and housing developers. (See Appendix A and Appendix B for summaries of the input from stakeholders.)

⁴ See, for example:

Oregon Department of Land Conservation and Development Oregon Housing and Community Services, “Oregon Housing Needs Analysis Draft Recommendations Report: Leading with Production,” Draft Report, August 2022.

Blue Sky Consulting Group for Oregon Housing and Community Services, “Affordable Housing Cost Study: Analysis of the Factors that Influence the Cost of Building Affordable Housing in Oregon,” 2019.

A summary of findings follows this introduction, followed by more detailed discussions of SDC History and Legal Context, The Role of SDCs in Funding Infrastructure, How and Why SDCs Vary Across Oregon, SDCs and Housing Costs, and SDC Administrative Policy Implications that document the project team’s research and analysis as well as input from stakeholders, where applicable. A list of acronyms and a glossary are included following the Conclusions, followed by appendices with additional details of data and analysis discussed in the report.

Similar studies have been conducted recently in different contexts. The University of California Berkeley’s Tener Center for Housing and Innovation completed a study of residential impact fees in California in 2019. The Federal Highway Administration completed a national study of development impact fees and other development charges in 2021. Topics in both works include impact fee structure, design, transparency, and timing; legislative history and case law; alternative funding options; impact of housing affordability, development feasibility, and cost incidence; and case studies and nexus studies. This report explores many of these topics within Oregon’s context.

Housing Affordability vs. Affordable Housing

This report addresses the implications of SDCs for *housing affordability* and for *affordable housing* and *lower-cost housing*. As used in this report, these terms are differentiated as follows:

- *Housing affordability* means households’ ability to find housing within their financial means, with or without public support or restrictions in place, across a range of income levels. This is commonly measured based on spending no more than 30 percent of gross income on housing (rent or mortgage, plus utilities). Housing affordability is a greater challenge for low-income households than higher-income households, but it is not exclusively focused on households at a particular income level.⁵
- *Affordable housing* means income and/or rent-restricted housing that is affordable to households earning a certain income level (generally below 60 or 80 percent of the area median income). Sometimes described as “income-qualified affordable housing” or “regulated affordable housing.”
- *Lower-cost housing* means market-rate housing (without income or rent/price restrictions) that offers lower sale prices or rents than most new housing in a given area and typically also has lower development costs.

⁵ The 30 percent standard is widely used but simplistic. See discussion and additional context related to defining affordability and affordable housing in the following memorandum:

Nick Meltzer, Sadie DiNatale, Bob Parker & Rebecca Lewis, University of Oregon, “Definitions of Affordable Housing,” to the Department of Land Conservation and Development and the HB 4079 Rulemaking Advisory Committee (RAC), September 19, 2016. https://www.oregon.gov/lcd/UP/Documents/UO-Defining_Affordability.pdf

Summary of Findings

History and Legal Framework

- **Impact fees have a long history, emerging nationally after World War II and in Oregon in the 1970s.** Requiring developers to build public improvements became common during the Great Depression.⁶ After World War II, local governments began to require that developers pay money instead of or in addition to dedicating land or public improvements.⁷ The first SDC in Oregon was enacted in 1972 by the City of Corvallis.⁸
- **U.S. Supreme Court rulings on development exactions inform how impact fees are set, though it's unclear whether they apply directly.** Legal doctrine surrounding development exactions (required dedications of land, money, or anything else of value as a condition of development approval) requires that they be clearly related and roughly proportional to the development's impact. A 2013 Supreme Court ruling raises questions about whether the same tests extend to impact fees, given that they are established in a legislative policy context rather than ad hoc for individual properties, but this broader legal context informs local approaches to impact fees.⁹
- **The Oregon SDC Act of 1989 established guidelines on the purpose and use of the charges and the methods for developing SDC rates.** The Act intended to help Oregon public agencies equitably recover the costs of infrastructure needed to serve growth from growth, thereby reducing the likelihood that those costs would be shifted to existing rate and taxpayers. The statutes allow SDCs to be used for capital improvements for five categories of public facilities: 1) water supply, treatment, and distribution; 2) wastewater collection, transmission, treatment, and disposal; 3) drainage and flood control; 4) transportation; and 5) parks and recreation. SDCs can be based on future improvements (an "improvement fee") identified in a capital improvement program or comparable plan and/or on available capacity in systems the jurisdiction has already built (a "reimbursement fee").¹⁰

Fiscal Context and the Role of SDCs

- **Federal infrastructure spending has declined since the 1980s, particularly for water infrastructure, while state and local infrastructure spending has increased.** Much of the increase in local infrastructure spending has been for system operations and

⁶ Vicki Elmer and Adam Leigland, *Infrastructure Planning and Finance: A Smart and Sustainable Guide for Local Practitioners* (Routledge, 2014), page 228.

⁷ *Ibid* 228.

⁸ Oregon Legislative Policy and Research Office, "System Development Charges" (State of Oregon, December 17, 2020), page 2.

⁹ *Koontz v. St. Johns River Water Management District*, 570 U.S. 595 (2013).

¹⁰ ORS 223.297.

maintenance, rather than capital projects.¹¹ The 2021 Bipartisan Infrastructure Law promises substantial federal investment in transportation and water infrastructure over the coming years, much of which is targeted at the repair and replacement of aging or unsafe infrastructure.¹² However, given the scale of the need, it will not fully close the gap for needed investment, and some funding will come in the form of loans rather than grants that must be repaid from local sources.¹³

- **In Oregon, declining state gas tax revenues and reductions in timber payments to many Oregon counties have caused further declines in available funding for transportation.**¹⁴ This has limited available revenue at the state and county level to fund major road improvements.
- **Oregon property tax limitations imposed in the 1990s slowed the growth of property tax revenue and sharply reduced localities' abilities to use property taxes to finance infrastructure improvements.** Oregon's Measures 5 and 50 limited property tax rates and the growth in assessed values, respectively. New operating or bond levies require voter approval under Measure 50, and special operating levies are subject to Measure 5 limits on total tax rate. These changes have constrained property tax revenue at the local level, which has generally grown at less than 5 percent per year for the past 2 decades,¹⁵ and they make funding infrastructure investments through property taxes more challenging.
- **At the same time, higher environmental and safety standards have increased the cost of infrastructure investments and maintenance, while construction costs and personnel costs (including pensions) have also risen.** Factors such as Clean Water Act requirements, requirements to manage water pollution from roadway runoff, and improvements to address particular pollutants and combined sewer overflows have increased the cost burden on local governments.^{16, 17, 18} Increasing awareness of risks from natural hazards such as earthquakes and tsunamis has also led to higher costs for many infrastructure capital projects, even before accounting for changes in material and labor

¹¹ Congressional Budget Office, "Public Spending on Transportation and Water Infrastructure, 1956 to 2017," October 18, 2018; and Congressional Budget Office, "Public Spending on Transportation and Water Infrastructure, 1956 to 2014," March 2, 2015.

¹² The White House. 2022. "Data Guidebook." A Guidebook to the Bipartisan Infrastructure Law.

¹³ McKinsey & Company, "US Water Infrastructure: Making Funding Count," November 24, 2021, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/us-water-infrastructure-making-funding-count>.

¹⁴ Oregon Legislative Policy and Research Office, "Funding Transportation Background Brief," September 2016, <https://www.oregonlegislature.gov/lpro/Publications/BB2016FundingTransportation.pdf>.

¹⁵ Oregon Department of Revenue, "A Brief History of Oregon Property Taxation," 150-303-405-1 (Rev. 6-09). <https://www.oregon.gov/DOR/programs/gov-research/Documents/303-405-1.pdf>

¹⁶ Rhiannon Jerch, "The Local Benefits of Federal Mandates: Evidence from the Clean Water Act" (Temple University, 2021).

¹⁷ Arthur C. Nelson, et al., *A Guide to Impact Fees and Housing Affordability* (Island Press, 2008), pages 12-13.

¹⁸ McKinsey & Company, "US Water Infrastructure: Making Funding Count," November 24, 2021, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/us-water-infrastructure-making-funding-count>.

costs. Smaller cities and rural communities may be disproportionately impacted by these costs.¹⁹

- **Local governments and special districts have increased water/sewer rates and added user fees to close funding gaps.** Water and wastewater utility rates have risen faster than inflation for many years, increasing by over 80 percent in total from 2008 levels compared to an increase of a little over 20 percent in the Consumer Price Index (CPI) over the same period.²⁰ At least 50 cities across Oregon also impose on-going user fees for government services like parks, streets, and public safety to fill the void that tax limitations created.²¹
- **SDCs are not the only local funding mechanism for infrastructure, even for growth-related infrastructure needs, but they are a key part of local infrastructure funding plans, particularly in fast growing communities.**
 - **SDCs can benefit developers by helping fund key infrastructure investments to make growth possible.** For example, SDCs often account for a substantial share of funding for infrastructure in new growth areas, with much of the rest coming from other development-derived sources.²² In this case, SDCs may make greenfield development costs more predictable and more evenly distributed, but not necessarily higher, if they substitute for other forms of exactions or developer contributions. In addition, several Oregon communities have used SDCs to help fund major water supply projects needed to allow residential development to continue, although they also needed to bond against utility rate revenue to provide a dependable income stream for debt payments.^{23, 24}
 - **SDCs also provide an important source of local matching funds** for state and federal infrastructure grants, particularly for parks and transportation.²⁵
 - **SDCs may be more viable than the alternatives.** Given the political challenges and legal or financial limitations associated with other potential local funding sources, jurisdictions face obstacles in using other funding sources to pay for infrastructure. This can increase pressure to maximize the use of SDCs for eligible costs, within the bounds of state law and legal precedent.

¹⁹ Scott Lazenby and Diane Odeh, “2021 Infrastructure Survey Report” (League of Oregon Cities, January 2021), pages 12-13.

²⁰ Robert Raucher et al., “Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector” (April 17, 2019).

²¹ FCS GROUP, “Water, Sewer & Storm Rate Study” (City of Newport, 2017), <https://www.newportoregon.gov/dept/fin/documents/WaterSewerStormRateStudy2017v6.pdf>.

²² ECONorthwest, “Infrastructure Funding Plan Toolkit: Guidance for Title 11 Concept and Comprehensive Planning” (Washington County, October 2020).

²³ Memorandum to Chris Cummings, Assistant Director, Economic Development regarding City of North Plain, Reservoir & Pump Stations Improvements (June 21, 2018).

²⁴ Jeff Bauman, “Review of Wilsonville’s Water Supply Planning,” (City of Wilsonville, February 23, 1998), 1.

²⁵ See Oregon SDC Study Summary of Service Provider Focus Groups (Appendix A).

- **SDCs can benefit existing residents by supporting infrastructure investments and mitigating utility rate and property tax increases.** While not all of a jurisdiction’s capital needs are related to growth and eligible for SDC funding, being able to draw on SDCs for costs that are eligible means less cost needs to be allocated to ratepayers or property owners. Increases to utility rates and property taxes impact residents’ cost of living on an on-going basis and may not track with household income (particularly for utility rates), creating their own affordability challenges for low-income households. Investments that maintain current service levels or create facilities that the whole community can use (e.g., new parks) also benefit existing residents.

SDCs Across Oregon

- **Most cities in Oregon charge at least one of the five allowable SDCs, but total rates vary substantially.** The total 2022 SDCs for a single-family residence range from under \$5,000 in some small cities to close to \$50,000 in some Portland Metro area jurisdictions based on data collected by FCS GROUP. Some of the smallest cities, particularly in Eastern Oregon, do not charge SDCs at all.
 - Based on 2022 data collected by FCS GROUP, the average total SDC rate for a single-family residence statewide is roughly \$15,000. SDCs for water, wastewater, transportation, and parks all average between \$3,800 and \$4,600 per single-family dwelling for the jurisdictions included in the sample, but substantial variability exists in these amounts across the state.
 - There is less aggregated data available on SDC rates for other housing types (e.g., multifamily and townhouses), but rates are typically less than those applied to single-family detached homes (roughly two-thirds as much for apartments and roughly 90 percent of the single-family detached rate for townhouses based on a review of several example communities).
- **SDC rates have increased over time in most Oregon communities for most infrastructure systems.** The average increase between 2007 and 2022 in total SDCs for single-family homes was roughly 105 percent over 15 years, with the highest increases for parks and transportation SDCs (101 and 110 percent, respectively).²⁶ For comparison, construction costs escalated by roughly 60 percent nationally and the Seattle area (the closest city included in the available construction cost index data) over the same period of time. Because many SDCs are indexed to construction cost escalation (increases in labor and material costs broadly), a faster pace of increase suggests other factors at play, such as regulatory mandates that drive more costly facility designs; less grant funding; changes to SDC methodology or discounting policies; land cost escalation (especially for parks); or under-reporting of some regional and district charges in 2007.

²⁶ 2007 data comes from the earliest available SDC survey data from the League of Oregon Cities (LOC). 2022 data is from data collected by FCS GROUP for the same jurisdictions who participated in the 2007 survey. Note that regional and district charges may not be consistently reported in the 2007 LOC data, which could exaggerate the magnitude of increases to some extent.

- **Many other states use impact fees, but comparing SDCs in Oregon to impact fees in other states can be misleading.** While a few studies have published national data on impact fees, differences between states in terminology and in which infrastructure systems or public services impact fees may apply to make it difficult to draw useful comparative conclusions. For example, both Idaho and Washington have separate statutes applicable to water and wastewater charges, and facilities charges related to these systems may not be consistently reported as impact fees. These studies primarily serve to highlight that impact fees in one form or another are used extensively in many states, and that total rates vary substantially between different communities in the states where they are in use.
- **Variation in local SDC rates stems from several factors, not all of which are related to the SDCs themselves.** Key factors include planning and policy choices made prior to establishing or updating an SDC rate that determine future system needs, methodology choices during rate-setting, and cost factors that service providers do not control.
 - **SDC project lists typically draw from local infrastructure system plans, which can vary widely in type and level of planned capital investments.**
 - Water, sewer, and stormwater master planning efforts are largely technical exercises informed by state and federal regulations. Depending on the nature and condition of the system, some communities may need to make more costly investments than others.
 - For transportation, while state standards and requirements can impact local project lists, local governments generally have discretion over priorities and standards for city streets. Communities may need different amounts and types of investment to meet local goals and state standards.
 - Parks plans are generally responsive to community-defined goals and informed by public input. This aligns investments with local priorities but can also result in greater variations in SDC-eligible project lists.
 - **Decisions about use of other local funding mechanisms to pay for infrastructure may occur prior to SDC updates.** For example, if there is support by the local community, a General Obligation (GO) bond may be used to fund a recreation center or a group of high-profile transportation projects.
 - **In establishing the SDC methodology, jurisdictions have flexibility on many elements that can impact SDC rates while staying within the bounds of statute.** There are many methodology variables that can impact the total costs the SDCs are designed to recover or how those costs are allocated to future users. Within the framework of Oregon SDC law, local governments have flexibility in selecting approaches that balance local objectives and data availability. Examples of SDC methodology choices that could impact rates include:
 - Narrowing projects to include in the SDC project list to keep costs down.
 - Valuing existing facilities based on replacement cost vs. original cost (with or without depreciation) in setting a fee based on available capacity.

- How costs are allocated to growth vs. existing users when facilities serve both (e.g., relative to existing level of service, based on the incremental cost of an oversized facility, or based on share of demand).
 - Whether grants or other sources are assumed to cover a portion of eligible costs for bigger projects (e.g., aquatic centers or major transportation improvements).
 - Whether rates account for financing and administrative costs.
 - How demand is measured (e.g., meter size for water, impervious surface area for stormwater, trip ends for transportation, or population for parks).
- **A growing number of jurisdictions are adopting SDC methodologies that adjust rates to reflect differences in demand or impact based on housing unit size.** These adjustments are typically based on local demand data. While they often pivot off an average rate for an average-size unit, they can lead to substantial differences in SDCs across jurisdictions for smaller or larger units.
 - **Many jurisdictions make policy choices to reduce SDC rates below what their methodology would support.** Among jurisdictions surveyed in 2020, 14 percent reported discounting a wastewater SDC, and 29 percent reported implementing a discounted parks SDC.²⁷ In focus groups, service providers highlighted elected officials’ concern about impacts to development and desire to remain competitive with peer jurisdictions as primary reasons for these choices. Some also noted phasing in larger SDC increases over several years for similar reasons.
 - **The cost of constructing capital improvements varies across the state.** Local cost drivers include lack of local labor and materials in some rural areas, high land costs in some urban areas, and geological and soil factors (e.g., steep slopes, rock outcroppings, or soils at risk of liquefaction) that can increase the costs of grading and construction.

Implementation Considerations

- **Beyond the SDC rates themselves, administrative decisions can play a big role in how SDCs affect developers and jurisdictions.** Key factors include the timing of SDC payment, exemptions for affordable housing or other types of development, policies related to credits for making improvements on the SDC project list, and availability of information about SDCs.
- **There are differing views on the validity of SDC exemptions for affordable housing** (or any purpose that is unrelated to a reduced demand for system capacity). Several cities and service providers have waiver policies in place for regulated affordable housing, while others do not feel it is fair (or, in some cases, legal) to waive fees for affordable housing unless the foregone revenue is “backfilled” from

²⁷ FCS GROUP analysis of data from League of Oregon Cities, System Development Charges Survey Report (February 2020).

other sources. A growing number of communities offer SDC exemptions for regulated affordable housing, but this is still the exception rather than the rule.

- **SDC credits for developers that build public improvements on the SDC project list can be a win-win for developers and jurisdictions, particularly in greenfield settings, but how they are administered matters.** Credit policies differ across providers in terms of project eligibility, creditable costs, and transferability. This variation, combined with a lack of clear information regarding how to calculate credit-eligible costs, can create uncertainty for developers. In addition, jurisdictions occasionally require developers to pay SDCs up front that will be reimbursed later even when they are building eligible projects, and this further increases carrying costs. Transferability was cited as a valuable benefit by multiple developers, especially given statutory limits on how long credits are valid (10 years). However, transfers can increase administrative costs for jurisdictions and reduce cash flow as more developers build projects or buy credits rather than paying SDCs directly.
- **The timing of SDC payment is important for both jurisdictions and developers, but for different reasons.** Jurisdictions have flexibility under statute to assess and collect SDCs at issuance of a development or building permit, or connection to or increased usage of a capital improvement.
 - **Many developers prefer to pay later in the process, primarily for financial reasons.** Payment at certificate of occupancy or even at time of sale (for for-sale housing) reduces financing costs or allows the money to go towards early construction costs, reducing the impact of the SDCs.
 - **Most service providers prefer to collect SDCs at issuance of the building permit as this offers the greatest certainty of payment with the least administrative effort.** Many expressed concerns about challenges with collecting payment at certificate of occupancy, and even more so at time of sale. However, the timing of the revenue was less of a concern, except in limited situations (e.g., park land acquisition within a new growth area). Jurisdictions that offer (or previously offered) deferral to certificate of occupancy report mixed results. All noted an increase in administrative effort to process and track deferrals, but the magnitude varies widely. Nonpayment issues and avoidance behavior do not appear to be common (some were linked to commercial development or to a specific developer) but were time-consuming when they did occur.
- **Developers value certainty about SDC costs for a particular project.** Unexpected increases to SDC costs can be difficult for both market-rate and affordable housing developers to absorb after financing and budgets are set. Estimating costs for multifamily development can be particularly challenging when SDCs are based on detailed characteristics such as fixture counts that may not be known early on. Clear definitions of housing types (particularly related to middle housing) are also important to allow for accurate early estimates of SDC costs. And if developers that defer SDCs are subject to the SDCs at time of payment, the uncertainty about SDC rate changes erodes the value of the interest cost savings from the deferral.

- **Some jurisdictions go above and beyond statutory notice and information availability requirements to engage and inform stakeholders, while others may not fully comply with (or be aware of) recent additions to state law regarding transparency.** Some jurisdictions pro-actively engage stakeholders in methodology decisions, provide simplified summary information about SDCs for the general public, and/or offer SDC estimation tools for developers. However, based on focus groups and review of several jurisdictions’ websites, newly required informational items (current SDC rates, methodology reports, project lists, and contact information for questions) are not consistently available online—most jurisdictions provide at least one of these items, but not all.

SDC Impacts on Housing Costs and Production

- **SDCs fund infrastructure that is needed to support growth, which can enable development and benefit future residents, but they also increase the cost of building new housing. Both factors can influence housing costs and housing production.**
- **In an accounting sense, housing developers pay the SDC (e.g., write a check). But the cost burden of the charge can be shared with a variety of other actors, including investors, landowners, homebuyers, and renters.** Developers need to weigh SDCs and other cost inputs against the sales prices or rents they are expecting to achieve on each project. Because SDC costs are outside developers’ control, they must make choices about other aspects of the development to bring total costs and prices or rents into alignment. How the SDC costs are ultimately distributed among the various market actors depends on the actors’ relative sensitivity to prices. Economic theory assumes the party with fewer alternatives is less sensitive to change in price and bears a greater portion of the SDC.
 - **Homebuyers and renters in tight housing markets likely bear a greater share of SDC costs.** If developers build larger units to justify higher prices, build smaller units to stay within what buyers or renters are willing to pay, or charge higher prices/rents for the same housing, end users are getting less value for their money and absorbing some of the costs, even if they are paying the same amount. Developers cannot charge higher prices or rents unless the market demand is strong enough to accept the increase. This is more likely to occur if demand exceeds supply. Affluent households are less likely to be cost-sensitive than lower-income households, but limited supply and lack of lower-cost options can also affect lower-income households, even if they are not absorbing costs directly.
 - **Theory suggests that landowners should absorb SDCs in large part by receiving less value for their land, though this may not always be the case.** Whether and to what extent SDCs are absorbed in land prices depends on the availability of other developable land within the same market, how much SDCs vary between comparable pieces of developable land, and the timing of the land purchase relative to when SDCs are known.
 - **Investors, lenders, and developers are unlikely to absorb SDCs by accepting lower returns except in very unusual circumstances or when SDC costs increase unexpectedly during development and cannot be passed on to others.** Generally,

- market-rate development will not occur unless the expected revenues from the project exceed the expected costs by a sufficient margin to create financial returns for investors, lenders, and developers that justify the risk of their investment. Investors and lenders usually have other options to invest in across multiple markets and will avoid places that generate lower risk-adjusted returns. Developers may absorb costs when they exceed initial expectations, but they avoid this as much as possible through contingency funds and by getting estimates of SDC costs up front.
- **Studies from Oregon and across the country have consistently shown a pattern of higher home prices in areas with higher SDCs. However, the reasons behind this remain unclear.**
 - **Academic research from across the country and across several decades shows positive correlations between impact fees and housing prices in a range of contexts.** The difference in home prices was larger than the difference in impact fees in some studies and smaller in others, but the direction of the relationship was consistently positive (higher home prices in areas with higher impact fees). Studies that evaluated relationships between impact fees and land prices or housing production had mixed results, with some finding positive relationships and others finding negative ones. These studies could not control for all other potentially relevant variables and do not establish causation, though some authors posit that the amenity value of the infrastructure itself is responsible for the relationship, rather than the costs of the impact fees. Others suggest potential cost-related explanations.²⁸
 - **Academic literature has also established a link between property values and key infrastructure.** Studies suggest that property values are higher closer to parks and that congestion is associated with “disamenity” (negative) values for some economic indicators, while bicycle and pedestrian infrastructure can increase property values. These factors can potentially drive home prices and rents in areas where SDCs are providing infrastructure that is valued by housing consumers.
 - **A comparison between average single-family home values and single-family SDC rates for 76 cities in Oregon shows a general pattern of higher SDC rates in areas with higher home values, but also substantial variation between communities.** Statistically this relationship accounts for only 33 percent of the variation in the data without controlling for any other factors. Service provider focus groups suggest that policy direction to keep rates low due to elected officials’ concern about impacts on development could account for some of the observed relationship (i.e., areas with lower home values and weaker housing markets may be less willing to impose high SDCs, even if infrastructure needs would justify them).
 - **An original analysis by ECONorthwest found a positive relationship between SDC levels and home prices for new development in Washington County, Oregon.** ECONorthwest analyzed sales transactions for new homes in three urban expansion areas and adjacent recent subdivisions in Beaverton, Hillsboro, and Tigard. Current SDC rates for the areas range from roughly \$33,000 to \$53,000 per

²⁸ See Appendix G for works cited.

- single-family detached unit, with higher rates in the expansion areas and differences between jurisdictions. A linear regression model showed higher housing prices in places with higher SDCs after controlling for other readily available housing characteristics: a \$10,000 difference in SDCs was associated with a \$7 per-square-foot difference in the price of newly built housing (about \$16,800 for a 2,400-square-foot home). However, developer interviews suggest the difference may also be due to the overall amount of infrastructure needed in the expansion areas and use of premium design and amenities to capture demand from higher-income households.
- **Longitudinal data from the City of Bend shows that changes in new home prices have not tracked closely with changes in SDC rates over time.** While both have increased over the past decade, new home prices have tracked with broader housing market conditions while SDC rates have tracked with construction cost indices that are used to adjust the rates year to year. While rising SDC costs could still be a contributing factor in rising home prices in Bend, they are not the primary driver.
 - **SDCs affect some housing more than others—smaller entry-level homes, lower-cost middle housing and apartments, and communities with weaker markets are disproportionately affected by SDCs.** High-end single-family detached housing is generally impacted least.
 - **For a typical new single-family home, SDCs account for a relatively small share of development costs** (estimated at roughly 3 percent in Oregon at average costs). Even a relatively high SDC rate (e.g., \$30,000) would account for 6 percent or less of development costs in many medium and large cities. For larger single-family homes, the share of costs is even less.
 - **SDCs are a greater share of costs for lower-cost housing types—multifamily, middle housing, and smaller single-family detached houses.** ECONorthwest’s estimates suggest SDCs account for roughly 4 to 5.5 percent of total development costs for these housing types at average costs for Oregon, but potentially 10 percent or more in high-cost markets with high SDCs. SDCs have a greater impact on financial returns and feasibility for these housing types as a result. This is supported by findings from developer focus groups, which highlighted entry-level homes and middle housing as particularly sensitive to SDC costs.
 - **When SDCs are scaled to unit size, their share of development costs is more consistent across housing types and unit sizes.** Compared to SDCs that are applied per unit, scaled SDCs result in a lower SDC share of development costs for lower-cost housing types with smaller units.
 - **While SDCs are typically lower in areas with weaker housing markets and lower land costs, these areas are also more sensitive to increases in SDCs.** For example, in a small city outside a metropolitan area, typical SDC costs for a single-family detached home might account for only 2 to 3 percent of development costs. However, a \$10,000 change in fee for a single-family unit would have a greater impact on financial feasibility in such a city than for developments inside a metropolitan area where land and housing prices are relatively expensive.

- **In communities without SDC exemptions, affordable housing development can also face substantial SDC costs.** Data from several Oregon communities shows that SDCs for an income-qualified affordable apartment development can cost from tens of thousands to over a million dollars in some jurisdictions. While other cost drivers may have a greater impact on affordable housing development costs overall, the cumulative expenditures on SDCs for affordable housing development across the state likely total millions of dollars per year.
- **SDC reductions do not guarantee lower prices or rents for market-rate housing, but targeted exemptions or reductions for certain housing types or price-points can support production of lower-cost housing options.** Evidence from communities that offer exemptions for lower-cost housing without long-term affordability restrictions shows that in some cases eliminating SDCs for housing that meets specific price points (or for small units like ADUs) can increase production of that type of housing by for-profit developers. However, the difference must be enough to meaningfully change development costs, and the development must be close to viable already. For more expensive housing, cost savings may or may not be passed on to buyers or renters, depending on how competitive the housing market is.

Part 1: SDC History and Legal Context

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1.1 History of System Development Charges

1.1.1 Origins of American Impact Fees

System development charges (also referred to as impact fees) are a form of exaction. When an owner of land plans to develop that land, the local government may determine that the planned development will create a need for additional public infrastructure. Having made such a determination, the local government may require the owner to provide some form of contribution or payment as compensation for the additional infrastructure that the local government must provide. This requirement is known as an exaction.

Exactions have long been viewed as the legitimate exercise of a local government's police power. Requiring developers to build public improvements became common during the Great Depression.³⁰ Exaction of land or public improvements is still common today, and such an exaction is known as a dedication.

In terms of the police power, most local governments have great discretion in regulating to protect the public's health, safety, and general welfare. In contrast, local governments have almost no discretion in the exercise of their power to tax. It was natural, then, that local governments would turn to the police power, where they had discretion, in order to finance infrastructure needs.²⁹

After World War II, local governments began to require that developers pay money instead of, or in addition to, dedicating land or public improvements.³¹ These monetary exactions come in two forms. An ad hoc monetary exaction is a customized calculation that is unique to a single development, its impacts, and the means of mitigating those impacts. A legislative monetary exaction is a rate or set of rates adopted by a governing body and applied consistently to development applications. These exactions are known generally as impact fees and known in Oregon as SDCs.

The first impact fee imposed in the United States (U.S.) may have been a "tap in" fee for new users imposed by the Hinsdale, Illinois, Sanitary District in 1947. The purpose of the fee was to finance expansion of the water treatment plant. The fee was challenged in court, but the Illinois Supreme Court ruled that the impact fee was "legal if used for capital and not operating expenses."³² The first SDC in Oregon was enacted in 1972 by the City of Corvallis.³³

²⁹ Arthur C. Nelson, Liza K. Bowles, Julian C. Juergensmeyer, and James C. Nicholas, *A Guide to Impact Fees and Housing Affordability* (Island Press, 2008), page 49.

³⁰ Vicki Elmer and Adam Leigland, *Infrastructure Planning and Finance: A Smart and Sustainable Guide for Local Practitioners* (Routledge, 2014), page 228.

³¹ *Ibid* 228.

³² William Grady Holt, "Impact Fees" in *The Encyclopedia of Housing*, second edition, edited by Andrew T. Carswell (2012), page 385.

³³ Oregon Legislative Policy and Research Office, "System Development Charges" (State of Oregon, December 17, 2020), page 2.

1.1.2 The Rise of State Enabling Acts

States have explicitly authorized impact fees in a variety of forms, for a variety of public services, since 1987. By 1995, 21 states had authorized impact fees of one form or another. By 2007, 27 states had authorized impact fees.³⁴ It is now estimated that as many as 34 of the 50 United States have codified impact fee authority and accompanying constraints.³⁵ All 4 of the states neighboring Oregon—Washington, California, Idaho, and Nevada—have impact fee statutes.³⁶

Local governments in Oregon and other states have always had the authority to impose impact fees on developers, but constitutional, statutory, and case laws constrain that authority.

The Oregon SDC Act: A Brief History

The Homebuilders Association (HBA) sponsored an SDC bill in Oregon that was vetoed by then Governor Goldschmidt in 1987. A small group of city and homebuilder representatives subsequently collaborated on a bill that became the initial law. In 1989, the Oregon Legislative Assembly passed the first provisions of the SDC Act, which is now codified in Chapter 223 (223.297 to 223.316) of the Oregon Revised Statutes (ORS). The SDC Act became effective in 1991.

The SDC Act's broad objective was to "provide a uniform framework for the imposition of system development charges by local governments, to provide equitable funding for orderly growth and development in Oregon's communities and to establish that the charges may be used only for capital improvements."³⁷ It was thought that having a uniform framework would protect both developers and public agencies—and reduce the cost of potential future litigation.

More specifically, the law was intended to help Oregon public agencies equitably recover the costs of infrastructure needed to serve growth from growth, thereby reducing the likelihood that those costs would shift to existing ratepayers and taxpayers.

Since its original passing in 1989, there have been multiple attempts to modify key provisions of the Oregon SDC Law, including expansion and restriction of the types of costs that may be included in the SDCs, clarification of legislative intent and other "housekeeping" modifications, and changes to procedural and methodological requirements.

The most significant changes to the law occurred with the passage of Senate Bill 939 in 2003. Ultimately, SB 939 was a negotiated solution to a longer list of changes sought by the

³⁴ Arthur C. Nelson, James C. Nicholas, Julian C. Juergensmeyer, "State Impact Fee Enabling Acts", contributed by Clancy Mullen, in *Impact Fees: Principles and Practice of Proportionate-Share Development Fees* (2009), page 114.

³⁵ National Impact Fee Survey: 2019, Mullen.

³⁶ Washington, RCW 82.02; Idaho, IC 67-82; Nevada, NRS 278B; California, CGC 66000.

³⁷ ORS 223.297.

Homebuilders Association. The most recent change to the statutes occurred in 2021. Section 1.2.2 outlines the key elements of ORS 223.297 – 223.316.

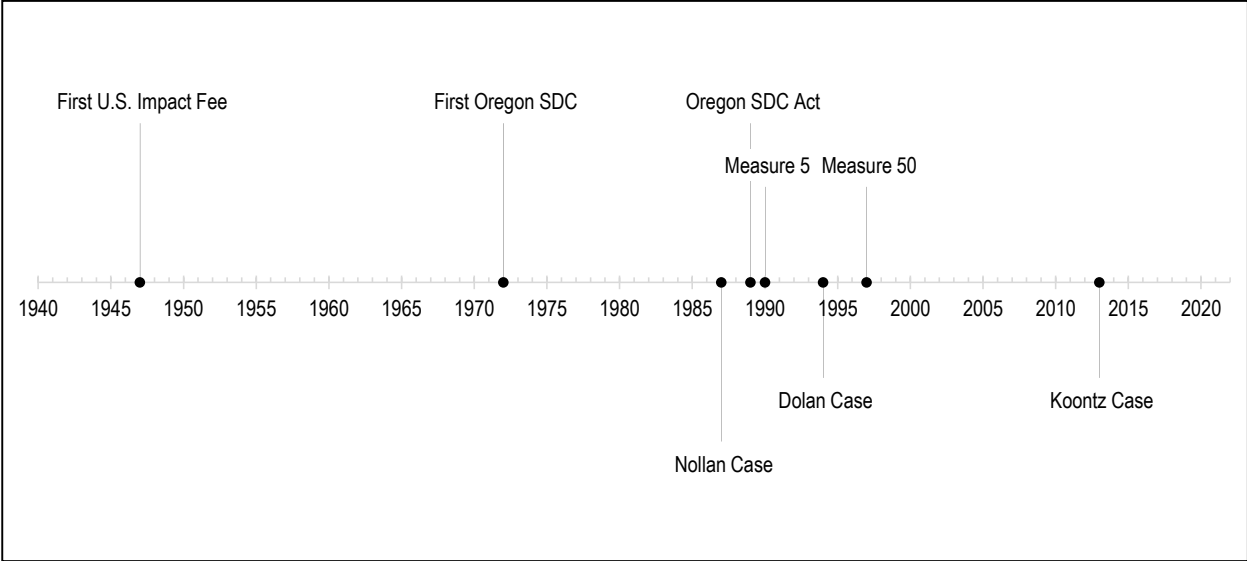
1.2 Legal Framework

1.2.1 Landmark Case Law

A number of U.S. Supreme Court cases related to exactions have defined tests of their constitutionality for exactions generally and monetary exactions. The most recent of these raises questions about whether the same tests extend to impact fees given that they are established in a legislative policy context rather than ad hoc for individual properties, but this broader legal context informs local approaches to impact fees. These cases are summarized below. The timing of these cases relative to other key events in SDC history is shown in Exhibit 1.

Exhibit 1. Impact Fee/SDC Historical Timeline

Source: FCS GROUP



Nollan (1987): Essential Nexus

Whether authorized by statute or not, all impact fees in the U.S. are subject to the Fifth Amendment of the U.S. Constitution, which created a distinction between an exaction that is a legitimate use of a local government’s police power and a taking that would require the local government to compensate the property owner.

The U.S. Supreme Court further clarified the line between exaction and taking in 1987 with its ruling on *Nollan v. California Coastal Commission*.³⁸ This ruling introduced the concept of “essential nexus” as a test for the validity of an exaction: Whatever is being required (exacted) as a condition of development approval must be clearly and directly related to the impact of the proposed development.

In this case, the California Coastal Commission was concerned that the new, larger home that the Nollans proposed would obstruct the public’s view of the ocean. But instead of imposing a

³⁸ *Nollan v. California Coastal Commission*, 483 U.S. 825, 837 (1987)

restriction on the house’s height or width, the Commission required an easement for public access to the beach. The Court found that this requirement (exaction) did not fulfill the purpose of maintaining the public’s view and was therefore a taking. In other words, if the impact of the development is an obstructed view, a valid exaction must mitigate that particular problem. This is the “essential nexus” that was henceforth required of a valid exaction.

Dolan (1994): Rough Proportionality

Like the Nollan case, *Dolan v. City of Tigard*,³⁹ was about dedications, not monetary exactions. Taking a step beyond an “essential nexus,” the U.S. Supreme Court ruling held that a “rough proportionality” must exist between the impact of the proposed development and the exaction intended to mitigate that impact.

However, the exaction in Dolan was a land dedication, or “possessory exaction,” required ad hoc at the time of permit approval, leaving open the question of whether the “rough proportionality” standard applied to legislatively adopted, non-possessory (monetary) exactions, like impact fees. The court also noted that generally applicable legislative regulations should be treated with more deference than property-specific determinations.⁴⁰

Koontz (2013): Monetary Exactions

In 2013, the U.S. Supreme Court finally ruled on a case involving monetary exactions. In *Koontz v. St. Johns River Water Management District*,⁴¹ the Court held that the Nollan and Dolan tests apply to monetary exactions just as they do to dedications, at least in the case of adjudicative exactions (specific to an individual parcels). However, the ruling may still leave open (to lower courts) the question of whether the more restrictive essential nexus test applies to legislative exactions that are programmatic or apply to development more broadly (e.g., service area-wide).^{42, 43, 44}

1.2.2 Oregon SDC Act: Overview of Key Elements

As mentioned previously, the broad objective of the Oregon SDC Act was to provide a uniform framework for the imposition of SDCs by local governments. The essential elements of this

³⁹ *Dolan v. City of Tigard*, 512 U.S. 374 (1994).

⁴⁰ U.S. Department of Transportation, Federal Highway Administration, “Essential Nexus, Rough Proportionality, and But-For Tests: State of the Practice,” 2021.

⁴¹ *Koontz v. St. Johns River Water Management District*, 570 U.S. 595 (2013).

⁴² Julie Kim, Bene Tellus, Thay Biship, and Stefan Natzke. Value Capture: Development Impact Fees and Other Fee-Based Development Charges, A Primer. Report No. FHWA-HIN-21-004. Washington, D.C.: U.S. Department of Transportation, August 2021 (page 26).

⁴³ Howard Ellman, Esq. and Kimberly Huangfu, Esq., “U.S. Supreme Court’s Koontz Decision Seemingly Broadened Landowner Protection in the Realm of Regulatory Takings Law, While Leaving Several Intriguing Questions Unanswered,” *Buchalter Nemer Client Alert*, September 2013.

⁴⁴ Adam Lovelady, “The Koontz Decision and Implications for Development Exactions,” *Coates’ Canons NC Local Government Law*, UNC School of Government, July 1, 2013.

framework are listed below. More specific requirements and local approaches to each element are addressed later in this report. Appendix C summarizes Oregon case law that clarifies some provisions of the Oregon SDC Act.

Definition of Capital Improvements

SDCs may be used for capital improvements for the following public facilities:

- Water supply, treatment, and distribution
- Wastewater collection, transmission, treatment, and disposal
- Drainage and flood control
- Transportation
- Parks and recreation

Previous legislative bills to amend the law by broadening facilities to include schools, police or fire improvements have been unsuccessful.⁴⁵ However, because of some of these efforts, the legislature did adopt a construction excise tax that is charged per square foot for new residential development to provide additional funding for schools.⁴⁶

Determination of SDC Amount and Methodology

SDCs may consist of a reimbursement fee, an improvement fee, or both. Improvement fees are associated with capital improvements to be constructed, while reimbursement fees are designed to recover the costs associated with capital improvements already constructed or under construction. The statutes put some constraints on the costs that may be included in each fee component:

- Reimbursement fees exclude existing facility costs funded by gifts or grants and costs associated with “used capacity” (facility capacity needed to meet existing development service demands).
- Improvement fees are based on the projected costs of capital improvements included on an SDC capital project list that expand capacity to meet the service demands of future system users.⁴⁷

An SDC methodology based on a combination reimbursement and improvement fee structure must demonstrate that the charge is not based on providing the same system capacity.⁴⁸

⁴⁵ For example, HB 2581 from the 2007 Oregon Legislature.

⁴⁶ ORS 320.176

⁴⁷ 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. ORS 223.307

⁴⁸ This requirement is straightforward to meet if there is no overlap in specific facility improvements between the two fee components, and if the value of used capacity in facility components is excluded from the reimbursement fee.

Beyond these constraints, the statutes provide flexibility in determining SDC amounts and methodologies, provided that new users contribute no more than an equitable share of costs.⁴⁹ It is important to note that the statutes do not prescribe specific bases for charging individual developments, nor do they preclude local governments from providing discounts, waivers, or exemptions for certain classes of development, consistent with modern rate-making principles.⁵⁰

SDC Capital Project List

Local governments are required to prepare a capital improvement program or comparable plan, prior to the establishment of an improvement SDC, that includes a list of the improvements that the jurisdiction intends to fund with improvement fee revenues and the estimated timing, cost, and eligible portion of each improvement.⁵¹ This requirement was an added provision to the original statute to provide greater transparency on the basis for improvement fee costs and expenditures. Since reimbursement fees are based on facilities already constructed or under construction, the project list requirement is not applicable.

SDC Credits

A credit must be provided against the improvement fee for the construction of “qualified public improvements.” Qualified public improvements are improvements required as a condition of development approval, identified in the SDC capital project list, and either:

- a) Not located on or contiguous to property that is the subject of development approval; or
- b) Located in whole or in part on or contiguous to property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.”⁵²

SDC Expenditures, Accounting, and Appeals

Expenditures of SDC revenues are limited to payment for capital improvements (including repayment of indebtedness) for the systems for which the fees are collected. Improvement fee revenues are limited to capacity-increasing capital improvements needed to provide service to future users, in accordance with the SDC capital project list.⁵³ SDC revenue may also be spent

⁴⁹ ORS223.297 (Policy) indicates that the imposition of SDCs is intended “to provide equitable funding for orderly growth and development in Oregon’s communities...” and 223.304 indicates that reimbursement fees must “promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities.”

⁵⁰ See for example, “Affordability and Equity Considerations for Rate-Setting” (Eric Rothstein, Stacey Isaac Berahzer, Joe Crea, and Michael Matichich for *Journal AWWA*, September 2021) which argues that water, wastewater, and stormwater service providers have a social responsibility to ensure universal, affordable access to services, as part of their rate-setting framework. Not all service providers or experts agree with this interpretation.

⁵¹ ORS 223.309

⁵² ORS 223.304(4)

⁵³ Per 223.307(2), “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.”

on the cost of complying with the statutes, but not for administrative office facilities or operation and maintenance costs associated with capital facilities.

Local governments are required to deposit SDC revenues into dedicated accounts and provide an annual accounting of revenues and expenditures.⁵⁴ Furthermore, local governments must create administrative procedures for individuals to challenge SDC revenue expenditures or calculations, and to provide adequate notice regarding review procedures, including the right to petition for review pursuant to ORS 34.010 to 34.100.

Methodology Notification, Review, Updating, and Transparency

The local government must maintain a list of persons who have made a written request for notification of establishment or modification of an SDC and provide notice to such individuals at least 90 days prior to the first public hearing to enact a new or modified SDC. The SDC methodology must also be made available for review 60 days prior to the first public hearing.⁵⁵

Application of one or more cost indices periodically is not considered a change in the methodology, provided that the index is published by a recognized agency, independent from the methodology, and incorporated into the methodology or adopted separately by ordinance or resolution.⁵⁶

Similarly, the SDC capital project list may be updated at any time. However, if an SDC is to be increased by a proposed modification to the list then written notice must be provided to interested parties at least 30 days prior to adoption of the proposed modification, and if requested within 7 days of the planned adoption, a public hearing must be held.⁵⁷

As a result of the most recent amendments in 2021, local governments are required to make information on SDC rates, methodologies, planned capital improvement project funding, and local official contact information available on a website or other means free of charge upon request.⁵⁸

⁵⁴ ORS 223.311. While not required, some local governments track fund balances for improvement fees and reimbursement fees separately, because there are fewer restrictions on reimbursement fee spending.

⁵⁵ ORS 223.304(7)

⁵⁶ ORS 223.304(8)

⁵⁷ ORS 223.309(2)

⁵⁸ ORS 223.316

Part 2: The Role of SDCs in Funding Infrastructure

Primary Contributors: ECONorthwest, FCS GROUP, Galardi Rothstein Group

2.1 Evolving Fiscal Context

There are a number of potential funding sources for water, wastewater, stormwater, transportation and parks infrastructure. However, the level of funds available to support development-driven infrastructure is constrained by local, state, and federal laws (that limit overall funding) and by rising costs for system operations, repair and replacement, and other capital improvements (that compete for some of the same funds). Beyond legal restrictions, broad local funding sources, like utility fees, are also increasingly constrained by concerns over ratepayer affordability, as ongoing user fees place an added burden on local households.

Exhibit 2 provides a list of potential infrastructure funding sources, which are described in more detail in Appendix D. While it is beyond the scope of this study to fully evaluate the trade-offs associated with each option, Sections 2.1.1 through 2.1.4 discuss key local, state and federal cost and funding trends that have elevated the importance of SDCs for funding development-driven infrastructure costs and implications of shifting the cost burden to other local sources like user fees.

Exhibit 2: Potential Infrastructure Funding Sources

Category	Examples
State and federal grants or low-interest loans	Water Wastewater Fund, Congestion Mitigation and Air Quality Improvement Program, Safe Drinking Water Revolving Loan Fund
Property tax-based funding	General obligation bonds, designating existing permanent rate operating tax revenue, or redirecting growth in operating revenue through tax increment financing
User-based funding	Utility rates, parking fees, facility rental fees, tolls, and system-wide user charges
Development-based funding	System-wide or area-specific SDCs, exactions, development agreements, local improvement districts
Fees or taxes on economic activity	Franchise fees, local gas tax, vehicle registration fees, prepared food and beverage tax, or transient lodging tax

2.1.1 Federal and State Funding Trends

Trends in Federal Funding for Infrastructure

Historical Trends

The U.S. Congressional Budget Office (CBO) describes historical trends in federal funding for infrastructure compared to state and local funding, going back to the 1950s:

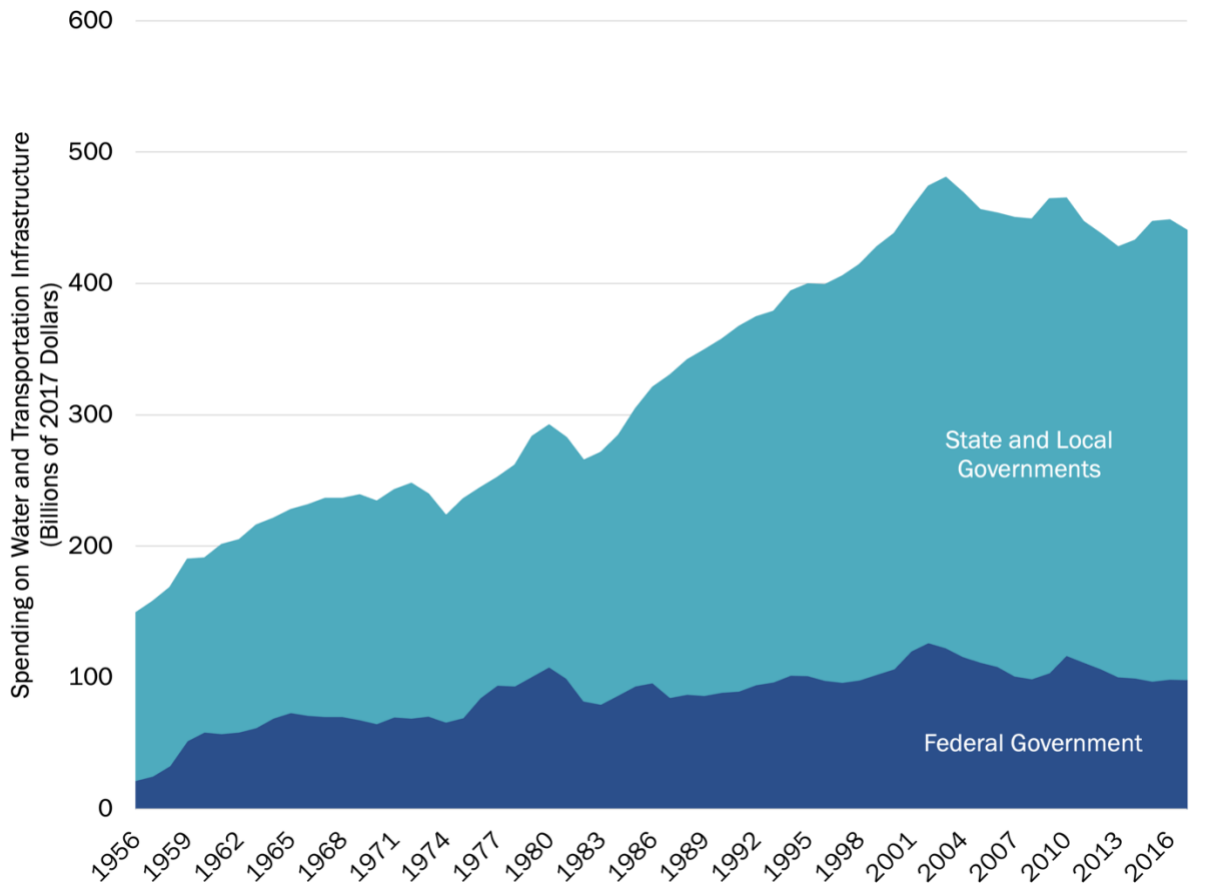
From the 1950s to the 1980s, the federal share of public infrastructure spending was typically much larger than it is today, reaching a high of 38 percent in 1977. But that share started to decrease in the 1980s, when state and local governments began to invest more in transportation and water infrastructure while federal spending on infrastructure remained relatively stable. Since 1987, federal spending has accounted

for roughly one quarter of public spending on transportation and water infrastructure.⁵⁹

This is shown in Exhibit 3.

Exhibit 3: Public Spending on Transportation and Water Infrastructure by Level of Government, 1956-2017

Source: ECONorthwest using data from the Congressional Budget Office, originally drawn from data from the Office of Management and Budget, the Census Bureau, and the Bureau of Economic Analysis.



Dollar amounts are adjusted to remove the effects of inflation using price indexes for government spending that measure the prices of materials and other inputs used to build, operate, and maintain transportation and water infrastructure.

The CBO notes that the American Recovery and Reinvestment Act (ARRA) “temporarily boosted federal outlays for infrastructure by \$55 billion, in nominal terms, over the 2009–2014 period; about one-half of that amount was spent in 2009 and 2010.”⁶⁰

Impact of Recent Infrastructure Spending Packages

The summary referenced above from the CBO predates passage of the federal Bipartisan Infrastructure Law introduced in mid-November of 2021, which allocated funding to over 350

⁵⁹ Congressional Budget Office, “Public Spending on Transportation and Water Infrastructure, 1956 to 2014,” <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49910-infrastructure.pdf>, March 2015, page 27.

⁶⁰ Ibid, page 16.

programs across several federal departments and agencies to improve broadband, rail and transit, clean energy, water, and other infrastructure.⁶¹ This infrastructure bill specifically budgeted almost \$570 billion for transportation projects, including roads, bridges, public transit, passenger and freight rail, and airports and waterways projects.⁶² Furthermore, the bill’s budget allocated over \$100 billion to resilience, water infrastructure, and clean drinking water projects. These investments far exceed those noted above from the ARRA and could dwarf federal spending on transportation and water infrastructure in 2017.

Exhibit 4: Bipartisan Infrastructure Law Budget, 2021: Transportation and Water Investments

Source: The White House. 2022. “Data Guidebook.” A Guidebook to the Bipartisan Infrastructure Law.

Investment Category	Budgeted (in billions)
Transportation	569
Roads, Bridges, and Major Projects	326
Public Transit	83
Passenger and Freight Rail	63
Electric Vehicles, Buses, and Ferries	19
Airports, Ports, and Waterways	42
Safety	38
Resilience, Water Infrastructure, and Clean Drinking Water	102
Total Transportation, Resilience, and Water	671

Additional discussion of recent federal legislation related to infrastructure funding for specific types of infrastructure is included in the following sections.

Variation by Infrastructure System

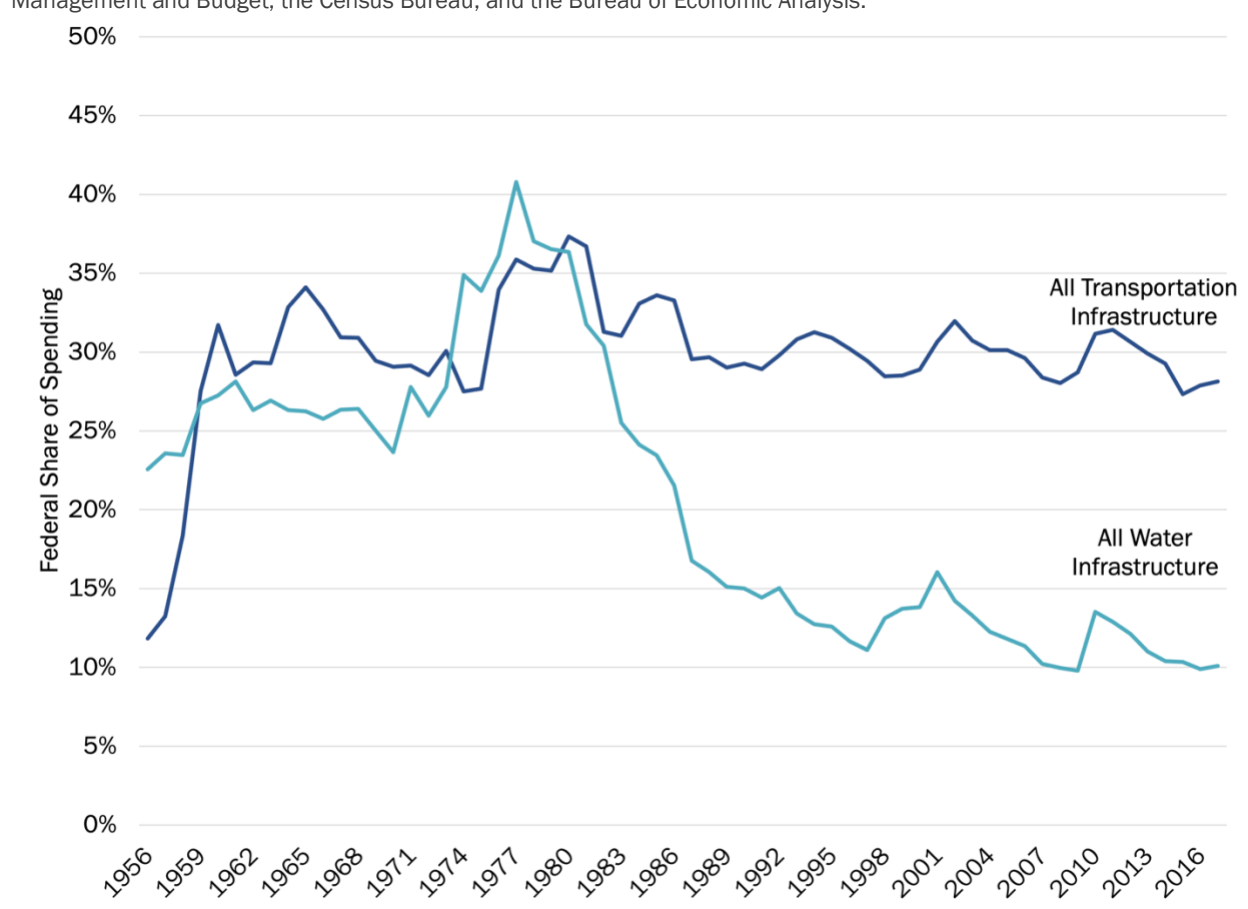
Federal contributions to infrastructure have varied between water and transportation over time, as shown in Exhibit 5. This shows that federal contributions to water infrastructure have dropped more dramatically as a share of total public spending, while federal transportation investments have remained relatively flat relative to total public spending.

⁶¹ The White House. 2022. Building a Better America: A Guidebook to the Bipartisan Infrastructure Law.

⁶² The White House. 2022. “Data Guidebook.” A Guidebook to the Bipartisan Infrastructure Law.

Exhibit 5: Federal Contribution to Infrastructure Spending by Type, 1956-2017

Source: ECONorthwest using data from the Congressional Budget Office, originally drawn from data from the Office of Management and Budget, the Census Bureau, and the Bureau of Economic Analysis.



Federal Spending on Water and Wastewater Infrastructure

Historical Trends in Federal Water and Wastewater Spending

Data on public spending for water resources and water and wastewater utilities⁶³ specifically (Exhibit 6) shows the rise of state and local spending for water-related infrastructure, and the decline in federal investment since the 1980s.⁶⁴ Spending on water supply and wastewater treatment facilities increased in the mid-1970s when the federal government provided grants to state and local governments under the Clean Water Act of 1972.⁶⁵

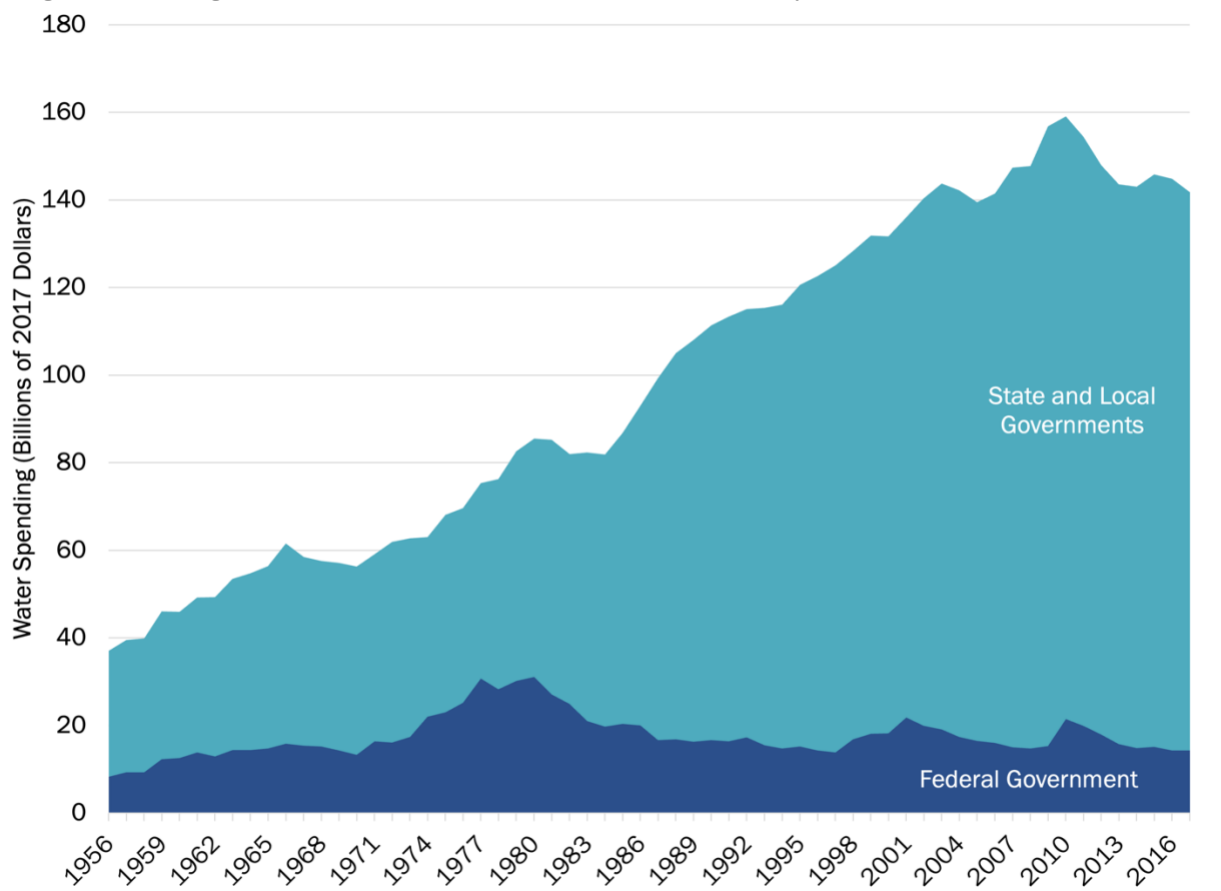
⁶³ According to the CBO data notes, “Water resources include water containment systems (dams, levees, reservoirs, and watersheds) and sources of freshwater (lakes and rivers). Water utilities include water supply and wastewater treatment facilities.”

⁶⁴ The rise in spending may be attributed to numerous factors including state and federal mandates and extensive need for infrastructure repair and replacement. In Oregon, recent changes to land use laws imposed on communities over 25,000 population by House Bill 2001 will further increase infrastructure spending needs for some local agencies to upgrade infrastructure to accommodate higher density development.

⁶⁵ Congressional Budget Office, “Public Spending on Transportation and Water Infrastructure, 1956 to 2014,” March 2015, page 16.

Exhibit 6. Public Spending on Water Infrastructure* by Level of Government, 1956-2017

Source: ECONorthwest using data from the Congressional Budget Office, originally drawn from data from the Office of Management and Budget, the Census Bureau, and the Bureau of Economic Analysis.



*Combines data on water resources, which include water containment systems (dams, levees, reservoirs, and watersheds) and sources of freshwater, and water utilities, which include water supply and wastewater treatment facilities.

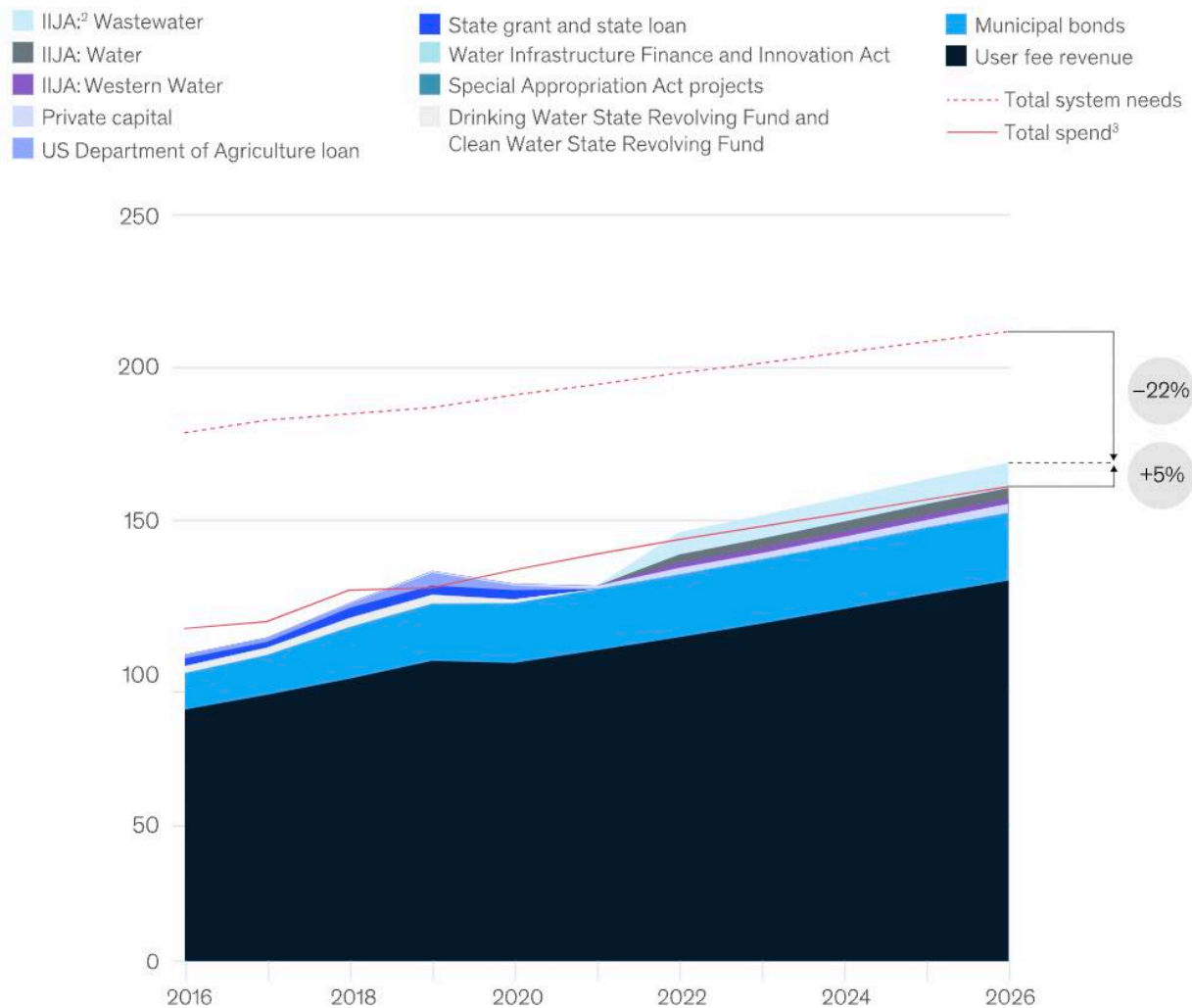
Recent Federal Funding Commitments for Water and Wastewater

Federal legislation like the Water Infrastructure Finance and Innovation and Infrastructure Investment and Jobs Acts have also contributed new critical funds for restoration and improvement since 2017 not reflected in Exhibit 6, including over \$55 billion of new investment. However, as Exhibit 7 shows, the combination of user fee revenue, municipal bonds, and increased funding from state and federal sources is still projected to leave a gap between available and necessary funds for these systems.⁶⁶

⁶⁶ McKinsey & Company, "US Water Infrastructure: Making Funding Count," November 24, 2021, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/us-water-infrastructure-making-funding-count>.

Exhibit 7. Water and Wastewater Funding Sources by Year, \$ billions

Source: McKinsey and Company⁶⁷



¹Only includes future federal funding from the Western Water and Drinking Water and Wastewater Infrastructure Acts, excluding any potential funding from the Transportation Infrastructure Act (~\$500 million) and Resiliency Act (~\$5 billion); it does not include any potential funding from the \$3.5 billion budget-reconciliation package.

²Infrastructure Investment and Jobs Act.

³Projection of total spend without federal stimulus.

Source: Congressional Research Service; Global Water Intelligence; Statista; US Environmental Protection Agency

Some of the largest federal contributions will be under the existing Drinking Water State Revolving Fund and Clean Water State Revolving Funds. While roughly half of their \$22 billion allocation is required to be in the form of grants or forgivable loans, the remainder will need to be repaid over time by the agencies receiving the funds.⁶⁸

⁶⁷ McKinsey & Company, "US Water Infrastructure: Making Funding Count," November 24, 2021, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/us-water-infrastructure-making-funding-count>.

⁶⁸ Seth Robertson and Ruby Wells, "Once-In-a-Generation Funding Opportunity: The \$1 Trillion IJJA," Hazen and Sawyer, September 15, 2022, <https://www.hazenandsawyer.com/articles/once-in-a-generation-funding-opportunity-for-water-infrastructure-congress-passes-the-1t-ijja>.

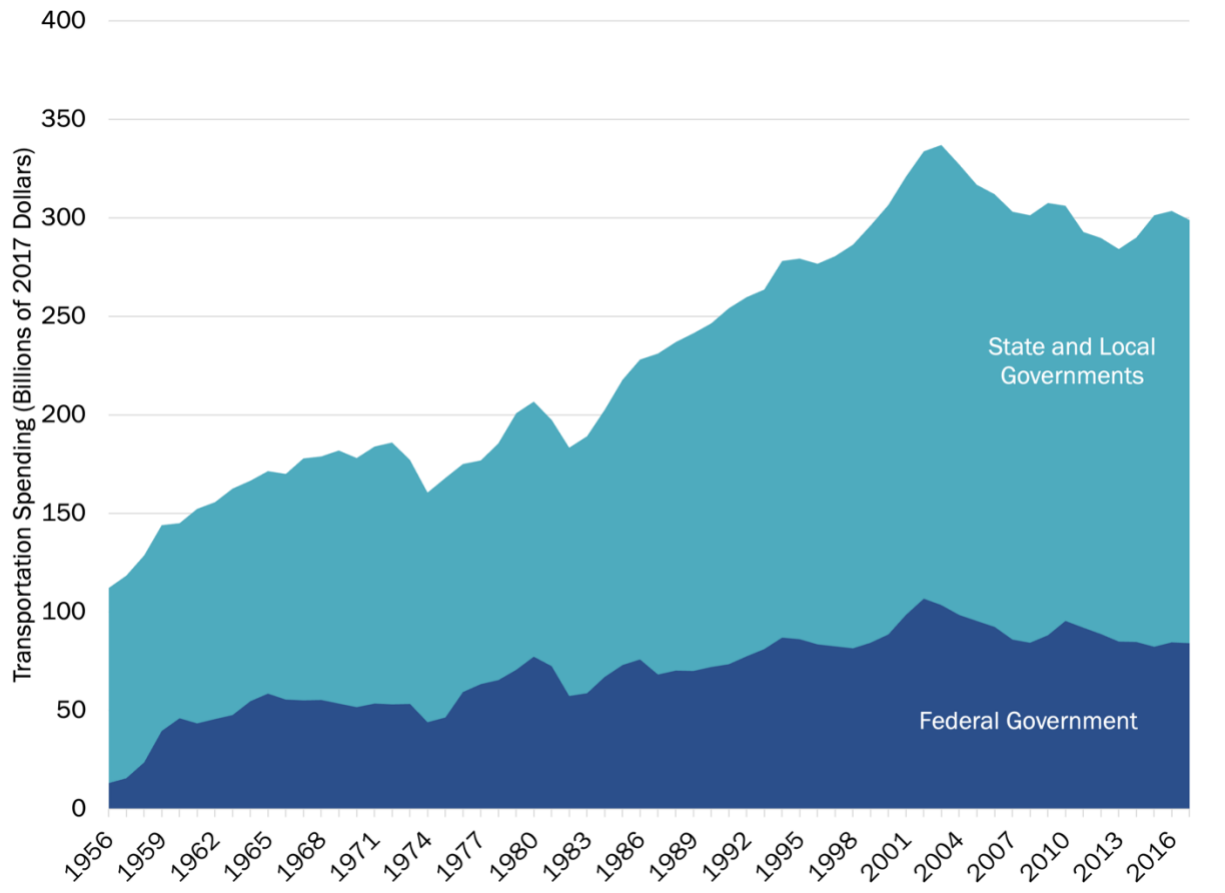
Federal Spending on Transportation

Historical Trends in Federal Transportation Spending

According to the CBO, “spending on highways increased under the Federal-Aid Highway Act of 1956 when the federal government funded construction of the Interstate Highway System. In the late 1990s, spending on highways and mass transit increased under the Transportation Equity Act for the 21st Century.” As shown in Exhibit 8, federal transportation spending has been relatively flat to slightly declining since the late 1990s in real terms.

Exhibit 8: Public Spending on Transportation* Infrastructure by Level of Government, 1956-2017

Source: ECONorthwest using data from the Congressional Budget Office, originally drawn from data from the Office of Management and Budget, the Census Bureau, and the Bureau of Economic Analysis.



* Transportation infrastructure includes highways, mass transit and rail, aviation, and water transportation.

According to one study:

The highway system that was to be primarily funded by federal sources has fallen into disrepair with increasing congestion because of inadequate federal funding. States elected not to assume the primary role that the federal government was abandoning for precisely the same reason that the federal government was abandoning it: cost. The

*responsibility for highway maintenance and other major public investments has fallen to local jurisdictions by default.*⁶⁹

Another component of federal funding for transportation in Oregon comes from federal timber payments in lieu of property taxes, 75 percent of which are dedicated to transportation. With declining timber harvests, these payments have been reduced, even with special allocations to address the decline.⁷⁰

Recent Federal Funding Commitments for Transportation

The Bipartisan Infrastructure Law is expected to boost federal spending on transportation in Oregon, some of which will include projects that would otherwise be funded (in whole or in part) at the local level, including bridge replacements, safety improvements, and climate resilience. (Note that these types of capital improvements are generally not growth-related, and they are less likely to include projects that would be eligible for significant funding from SDCs.) Much of the funding that could go towards local projects will be allocated through competitive grants.⁷¹

State Funding for Transportation

Revenue limitations have affected state funding for transportation as well. Oregon's State Highway Fund is shared among the state highway program, county roads, and city streets under a formula in which approximately 50 percent of revenues go to the state, 30 percent to counties, and 20 percent to cities. The State Highway Fund's revenue sources include state fuel taxes, state weight-mile taxes on trucks, state vehicle registration and title fees, and federal funds. Neither fuel taxes nor user fees are indexed to inflation, and increasing vehicle efficiency, along with hybrid and electric vehicles, are reducing fuel consumption, which have led to flat or decreasing funding from these sources.⁷²

Federal Financial Backing for Subdivision Development

The spike in federal transportation spending in the post-World War II era was accompanied by federal housing policies that supported new housing development and developers' ability to finance greenfield development costs. During that period, the Federal Housing Association (FHA) incentivized developers to build large new segregated single-family subdivisions through guaranteeing bank loans and mortgage insurance by way of pre-construction plan approvals.⁷³ The FHA's approval of subdivision plans ensured builders' ability to obtain low-

⁶⁹ Arthur C. Nelson, Liza K. Bowles, Julian C. Juergensmeyer, and James C. Nicholas, *A Guide to Impact Fees and Housing Affordability* (Island Press, 2008), pages 12-13.

⁷⁰ Oregon Legislative Policy and Research Office, "Funding Transportation Background Brief," Updated: September 2016. <https://www.oregonlegislature.gov/lpro/Publications/BB2016FundingTransportation.pdf>

⁷¹ U.S. Department of Transportation, "The Bipartisan Infrastructure Law Will Deliver for Oregon," April 12, 2022, <https://www.transportation.gov/briefing-room/bipartisan-infrastructure-law-will-deliver-oregon>

⁷² Oregon Legislative Policy and Research Office, "Funding Transportation Background Brief," Updated: September 2016. <https://www.oregonlegislature.gov/lpro/Publications/BB2016FundingTransportation.pdf>

⁷³ Rothstein, Richard. 2018. *The Color of Law*. New York, NY: Liveright Publishing Corporation. p. 70, 75.

interest loans issued by banks to finance their construction projects.⁷⁴ At this time, banks were usually cautious about issuing loans for working families, but they often did so when the mortgages were insured.⁷⁵ Therefore, because the FHA's approval of the pre-construction plans would automatically guarantee mortgage insurance, this meant little risk for the banks, and so they regularly financed these massive subdivision construction projects and land acquisitions costs, sometimes covering the full cost of entire suburbs.⁷⁶

However, there was a major caveat to attaining the FHA's approval and mortgage insurance: the requirement of an "openly stated prohibition on sales to African Americans."⁷⁷ FHA rejected subdivision construction proposals that either considered housing African Americans and/or were to be built too close to where predominantly non-white communities resided. Anything that threatened possible integration was not federally insured.⁷⁸ The FHA (and later the Department of Veterans Affairs) required that any mortgage insurance approval would be reliant upon the addition of racially restrictive covenants in every one of the subdivisions' property deeds, often with overt racist language such as "*no lot or portion of a lot or building erected thereon shall be sold, leased, rented, or occupied by any other than those of the Caucasian race.*"⁷⁹

Thus, suburban development during the post-World War II era enjoyed federally supported low-interest financing that facilitated infrastructure investments by private developers, but only for segregated, white-only subdivisions.

2.1.2 Infrastructure Cost Trends

Costs Associated with Changing Environmental Regulations

A growing understanding of the importance of environmental and public health protections has led to an increase in federal regulations that affect water, wastewater, stormwater, and transportation infrastructure, including the National Environmental Policy Act (NEPA) of 1969, the Clean Air Act (CAA) of 1970, the Clean Water Act (CWA) of 1972 (CWA), and the Endangered Species Act (ESA) of 1973. These policies have led to major improvements in environmental protection and human health, but not without cost.

A study of the state and local costs associated with the Clean Water Act (CWA), for example, found that local government wastewater expenditures increased by \$157 per capita, or over 230 percent, after the implementing CWA mandates. Total city expenditures increased by

⁷⁴ Rothstein, Richard. 2018. *The Color of Law*. New York, NY: Liveright Publishing Corporation, p. 10.

⁷⁵ *Ibid.*, p. 11.

⁷⁶ *Ibid.*, p. 70-71.

⁷⁷ *Ibid.*, p. 10.

⁷⁸ *Ibid.*, p. 74.

⁷⁹ *Ibid.*, p. 84-85.

approximately 33 percent, primarily driven by increased wastewater spending. To recoup the expenditures, cities increased wastewater user fees by \$40.80 per capita.⁸⁰

Another study found that the cost of water pollution control for streets also increased the cost burden on local governments:

*As a result of new federal environmental mandates, local jurisdictions were also being directed to make massive investments in water pollution control facilities. These investments originally were funded up to 85 percent by federal grants. They are now funded by federal loans amounting to 45 percent.*⁸¹

Other regulatory requirements that improve safety and resilience but increase the amount of capital needed for improvements include addressing levels of harmful polyfluoroalkyl substances (PFAS) in drinking water, combined-sewer overflows, phosphorus and nitrogen levels that impact algae blooms, and preparation for extreme weather events.⁸²

In Oregon, the rising cost of keeping up with safety improvements may have disparate impacts across the state. Many smaller cities lack the funding capacity to add additional expenses for treatment and may not qualify for grants or loans because of population size or leverage in the form of matching funds.⁸³

Operations and Maintenance Costs

As the total amount of infrastructure has grown over time and major facilities built in previous decades have aged, the cost of operations and maintenance for existing facilities has increased, with much of this cost falling on local governments.

*Spending for the operation and maintenance of all types of transportation and water infrastructure has increased steadily since 1956. Spending for capital — particularly for mass transit and rail, for aviation, and for water utilities — has also increased since then, but it has typically done so at a lower rate.*⁸⁴

Since 1956, state and local governments' expenditures for the operation and maintenance of infrastructure have grown at an average annual rate of 2.4 percent, roughly three times faster than the 0.9 percent average annual growth rate of

⁸⁰ Jerch, Rhiannon. 2021. The Local Benefits of Federal Mandates: Evidence from the Clean Water Act. Temple University.

⁸¹ Arthur C. Nelson, Liza K. Bowles, Julian C. Juergensmeyer, and James C. Nicholas, *A Guide to Impact Fees and Housing Affordability* (Island Press, 2008), pages 12-13.

⁸² McKinsey & Company, "US Water Infrastructure: Making Funding Count," November 24, 2021, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/us-water-infrastructure-making-funding-count>.

⁸³ Scott Lazenby and Diane Odeh, "2021 Infrastructure Survey Report" (League of Oregon Cities, January 2021), 12-13.

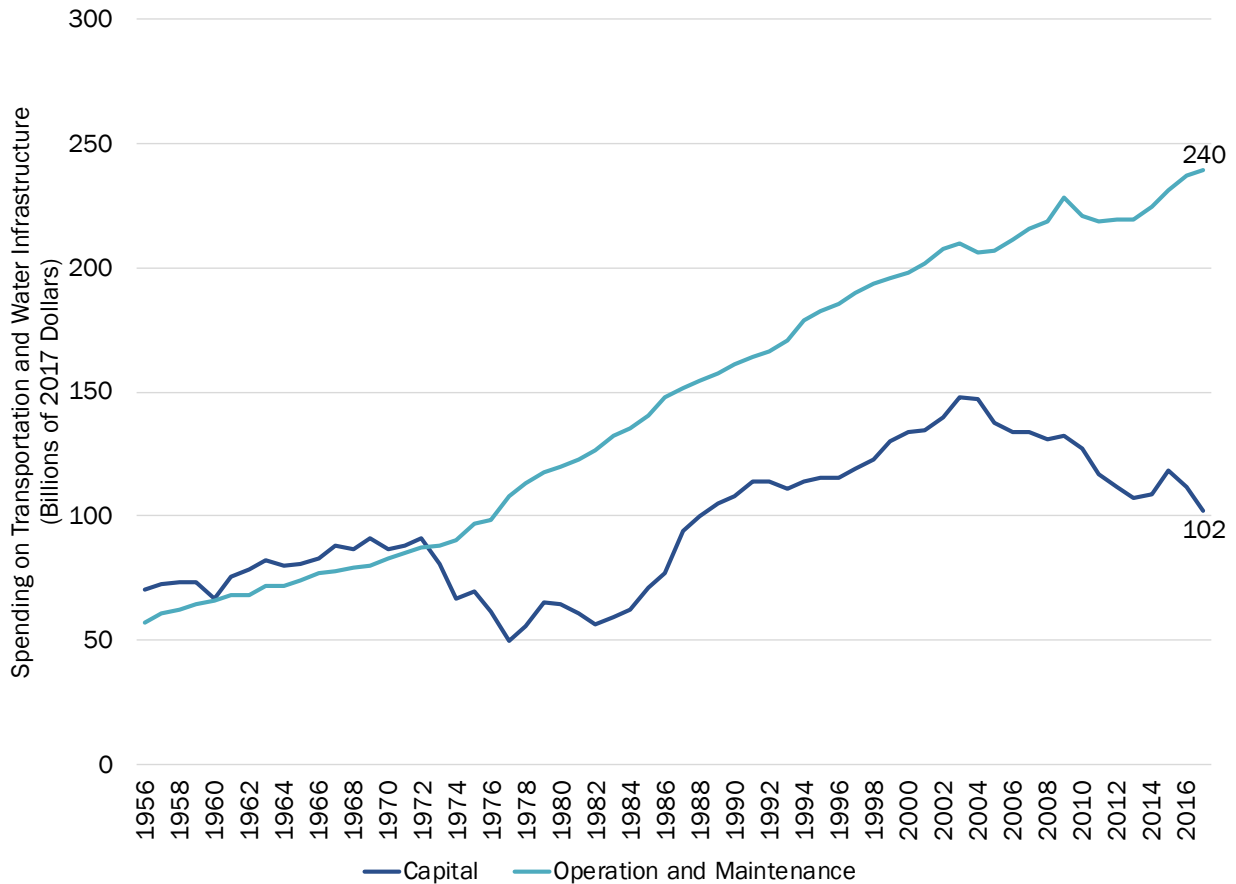
⁸⁴ Congressional Budget Office, "Public Spending on Transportation and Water Infrastructure, 1956 to 2014," <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49910-infrastructure.pdf>, March 2015, page 27.

spending on capital. As a result, although state and local governments spent more for capital than for operation and maintenance in 1956, state and local spending for operation and maintenance has exceeded capital spending each year since 1973.⁸⁵

This is shown in Exhibit 9.

Exhibit 9: State and Local Spending on Transportation and Water Infrastructure, by Category of Spending, 1956 to 2017

Source: ECONorthwest using data from Congressional Budget Office originally drawn from data from the Office of Management and Budget, the Census Bureau, and the Bureau of Economic Analysis.



State and local spending is net of federal grants and loan subsidies.

a. Dollar amounts are adjusted to remove the effects of inflation using price indexes for government spending that measure the prices of goods and services consumed by governments, including materials and other inputs used to operate and maintain transportation and water infrastructure.

b. Dollar amounts are adjusted to remove the effects of inflation using price indexes for government spending that measure the prices of materials and other inputs used to build transportation and water infrastructure.

The Bipartisan Infrastructure Law’s focus on bridge repair and replacing lead drinking water pipes⁸⁶ could mitigate some of the more costly maintenance needs affecting water and transportation infrastructure, but it will not eliminate local operations and maintenance and

⁸⁵ Congressional Budget Office, “Public Spending on Transportation and Water Infrastructure, 1956 to 2014,” <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49910-infrastructure.pdf>, March 2015, page 22.

⁸⁶ The White House, “President Biden’s Bipartisan Infrastructure Law”, <https://www.whitehouse.gov/bipartisan-infrastructure-law/>

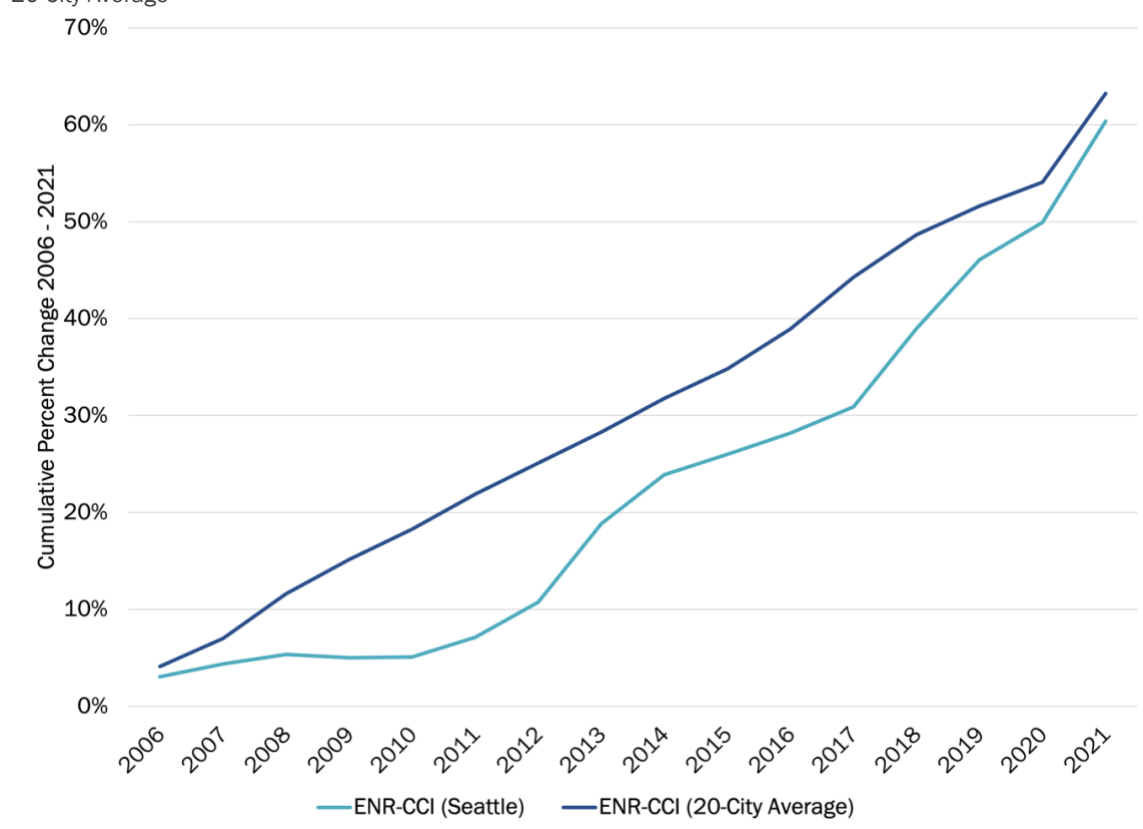
other system replacement costs. A recent assessment found that “even a large increase in federal funding won’t fully cover the needed investment.”⁸⁷ Some localities are employing strategies like new metering technology to more efficiently track and plan for demand (ideally saving costs in the long run), but that may require startup capital for these upgrades.⁸⁸

Rising Capital Construction Costs

The most widely used construction cost indices in the Pacific Northwest are the Construction Cost Index (CCI) for Seattle and the 20-City Average Index, both published by the *Engineering News-Record (ENR)*. Exhibit 10 shows the annual average percent change in each index between 2007 and 2021. While the Seattle index has greater variation from year-to-year (particularly during the Great Recession and the few years following recovery), the longer-term trends of both indices are similar, with each increasing an average of about 3.0 percent per year. However, national and regional costs have increased significantly in the first half of 2022. Both the Seattle and 20-City average indices increased by 8-10 percent through June, compared to the 2021 annual average indices.

Exhibit 10. Historical Construction Cost Escalation, 2006-2021

Source: ECONorthwest and FCS GROUP using data from Engineering News Record, Construction Cost Index for Seattle and 20-City Average



⁸⁷ McKinsey & Company, “US Water Infrastructure: Making Funding Count,” November 24, 2021, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/us-water-infrastructure-making-funding-count>.

⁸⁸ *Ibid.*

2.1.3 Property Tax Limitations

Starting around 1974, the U. S. experienced an inflationary period that significantly affected home prices. In areas where property tax bills were based on the market value of the home, resulting tax increases drew resistance. In 1978, voters in California passed the first of many such anti-tax measures across the country. Proposition 13 amended the California Constitution in three important ways:

- Real property valuations were rolled back to their 1975-76 values.
- Increases in assessed value were limited to 2 percent per year.
- Except for some voter-approved levies, total property tax per year was limited to 1 percent of a property's assessed value.

Oregon Property Tax Measures

Oregon's property tax system changed substantially in the 1990s, following the trend in California and other states. The system as it existed in the early 1990s, and the major changes to it, are described in a publication from the Oregon Department of Revenue.⁸⁹ Excerpts of this summary are included below:

Measure 5, which introduced tax rate limits, was passed in 1990 and became effective in the 1991-92 tax year. When fully implemented in 1995-96, Measure 5 cut tax rates an average of 51 percent from their 1990-91 levels. Measure 50, passed in 1997, cut taxes, introduced assessed value growth limits, and replaced most tax levies with permanent tax rates. It transformed the system from one primarily based on levies to one primarily based on rates. When implemented in 1997-98, Measure 50 cut effective tax rates an average of 11 percent from their 1996-97 levels.

Pre-Measure 5

Pre-Measure 5 Oregon had a pure levy-based property tax system until 1991-92. Each taxing district calculated its own tax levy based on its budget needs. ... Generally speaking, the full market value of property was taxable; there was no separate definition of assessed value. ... Most levies were constitutionally limited to an annual growth rate of 6 percent, and levies that would increase by more than 6 percent required voter approval. ... The annual growth in taxes on an individual property depended on a number of factors, including new or larger levies and the amount of new construction within the district. ...

Measure 5

Measure 5 introduced limits, starting in 1991-92, on the taxes paid by individual properties. The limits of \$5 per \$1,000 real market value for school taxes and \$10 per

⁸⁹ Oregon Department of Revenue, "A Brief History of Oregon Property Taxation," 150-303-405-1 (Rev. 6-09). <https://www.oregon.gov/DOR/programs/gov-research/Documents/303-405-1.pdf>

\$1,000 real market value for general government taxes apply only to operating taxes, not bonds. If either the school or general government taxes exceeded its limit, then each corresponding taxing district had its tax rate reduced proportionately until the tax limit was reached. This reduction in taxes to the limits is called “compression.” ...

Measure 50

The objective of Measure 50 was to reduce property taxes in 1997-98 and to control their future growth. It achieved these goals by cutting the 1997-98 district tax levies, and by making three changes: switching to permanent rates, reducing assessed values, and limiting annual growth of assessed value.

While Measure 5 simply limited the tax rates used to calculate taxes imposed, Measure 50 changed the concepts of both assessed values and tax rates. Assessed value is no longer equal to real market value. For 1997-98, the assessed value of every property was reduced to 90 percent of its 1995-96 assessed value. ...

For existing property, Measure 50 limited the annual growth in assessed value to 3 percent. ... For new property (e.g., newly constructed homes), assessed value is calculated by multiplying the new property’s real market value by the ratio of assessed value to real market value of similar property. ...

Under Measure 50, permanent tax rates replaced most levies, making the permanent rates central to the property tax system. There are three types of property taxes that taxing districts may impose: taxes from the permanent rates, local option levies, and bond levies. Only the permanent rates are fixed. ...

Taxes from the permanent rates, typically referred to as operating taxes, are used to fund the general operating budgets of the taxing districts. ... Local option taxes represent the only way taxing districts can raise operating revenue beyond the permanent rate amount. Even so, these taxes are the first to be reduced if the Measure 5 limitations are exceeded. Because voters at the local level must approve these levies, they represent one aspect of local control over the level of property taxes.

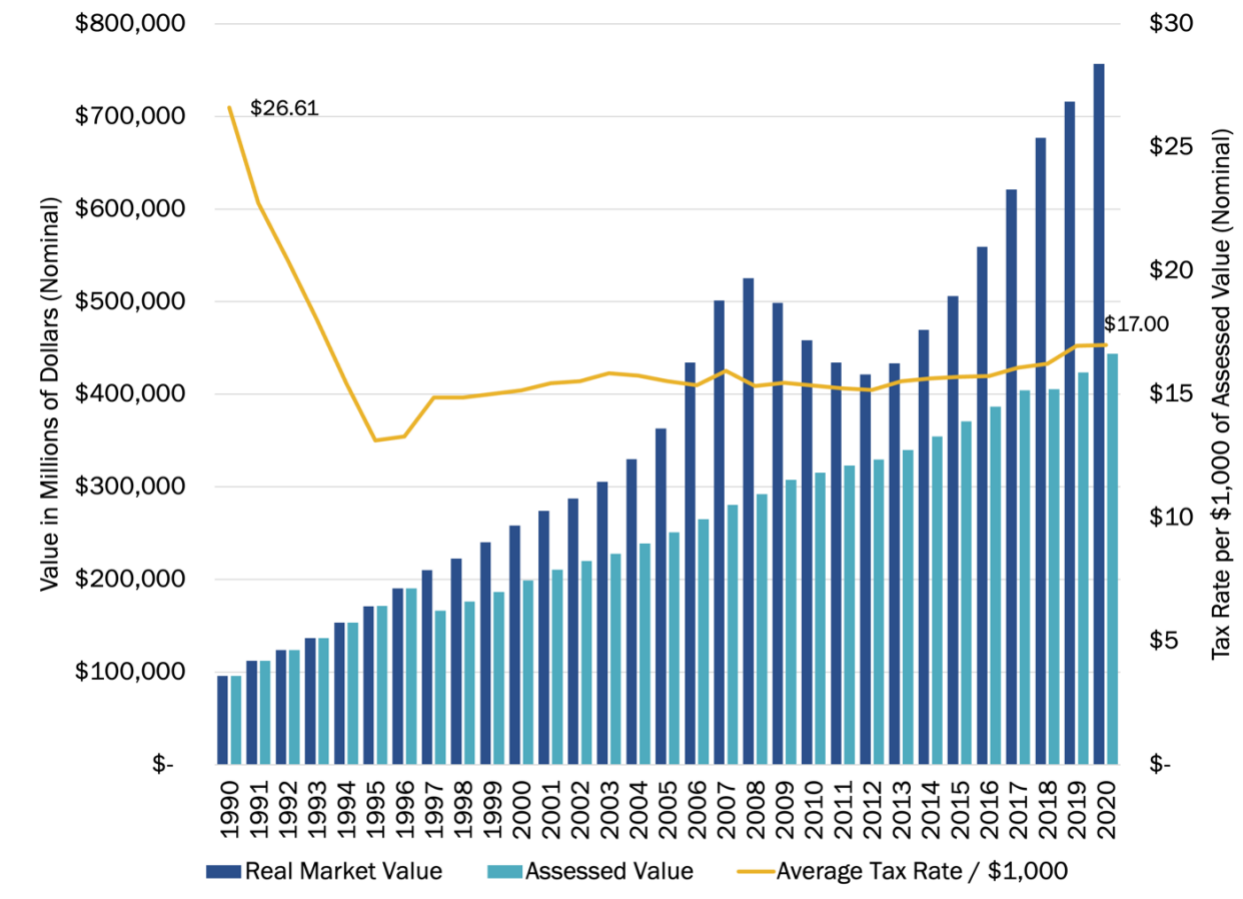
Bond levies have remained largely unchanged. They are used to pay principal and interest for bonded debt. Under the provisions of Measure 50, new bond levies, like new local option levies, are subject to a 50 percent voter participation requirement if the election is not a general election.

The statewide revenue implications of these measures can be seen in data from tables published by the Oregon Legislative Revenue Office, as summarized in Exhibit 11 and Exhibit 12, based on data from the Oregon Department of Revenue.

In Exhibit 11, the impact of Measure 5 can be seen by the decrease in the “Average Tax Rate/\$1,000” beginning in July 1991 (the start of FY 1991-92). Similarly, the impacts of Measure 50 are reflected in the July 1997 decrease and then generally smaller increases in “Assessed Value,” as compared to the “Real Market Value” column.

Exhibit 11. Property Value (Real Market Value and Assessed Value) and Effective Tax Rate History, Oregon (Statewide), 1990-2020

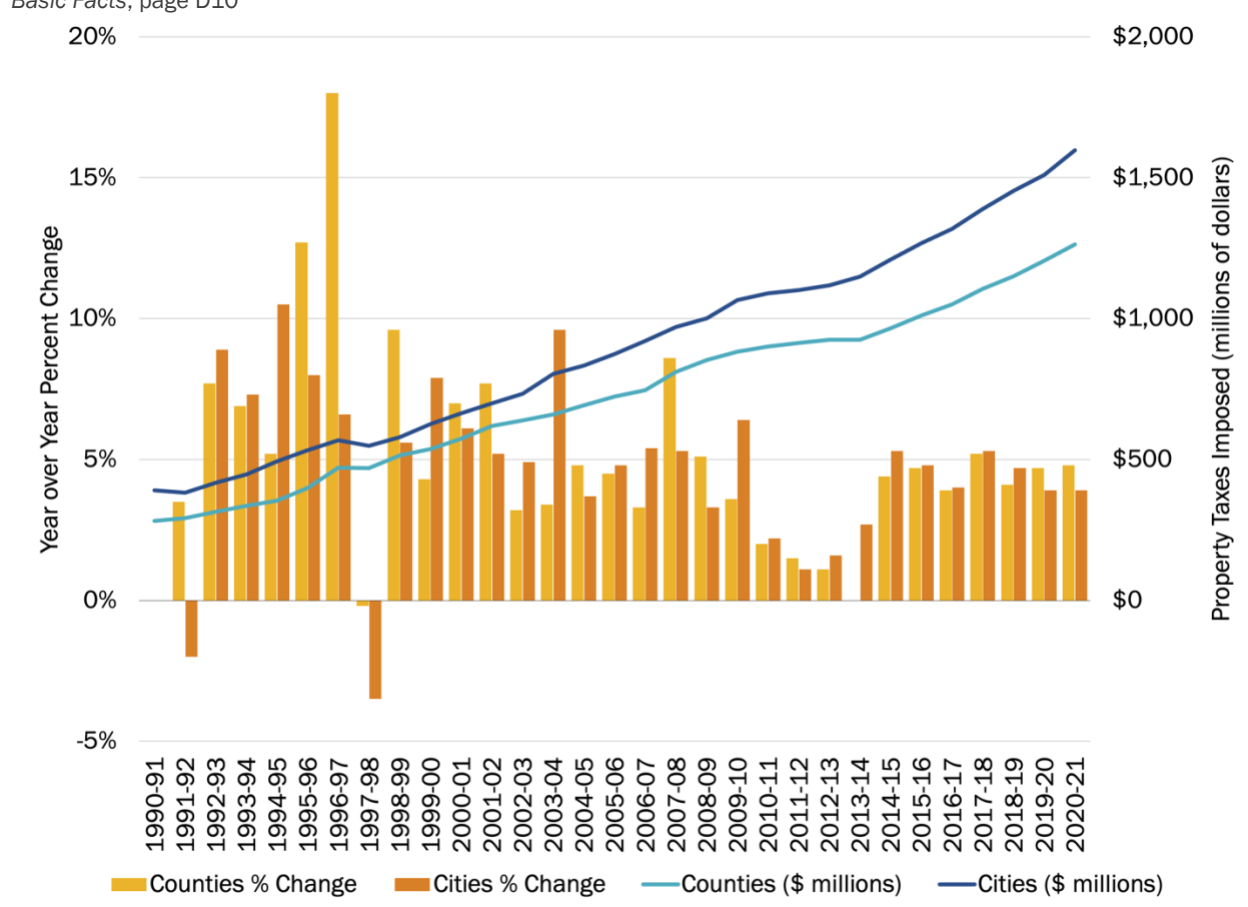
Source: ECONorthwest and FCS GROUP, using data from Oregon Legislative Revenue Office, 2022 Oregon Public Finance: Basic Facts, page D6



The impacts of these measures on city and county revenues become even clearer when the resulting property tax imposed for the same period are considered, as shown in Exhibit 12.

Exhibit 12. Property Tax Revenue History

Source: ECONorthwest and FCS GROUP, using data from Oregon Legislative Revenue Office, *2022 Oregon Public Finance: Basic Facts*, page D10



In addition to constraining property tax revenue, the requirement for voter approval of new bond levies increases the political difficulty of using this mechanism to fund capital improvements in infrastructure.

2.1.4 Trends in Utility Rates and Other User Fees

The combined effect of state property tax limitations and flat or reduced federal funding has been increased pressure on local government-controlled user fees to meet growing infrastructure funding needs (both operation and maintenance and capital investment). This has resulted in significant increases in water, wastewater, and stormwater utility rates (ongoing charges to utility customers based on system-specific usage measures) and imposition of new user fees for other government services (e.g., parks and transportation).

Utility Rates

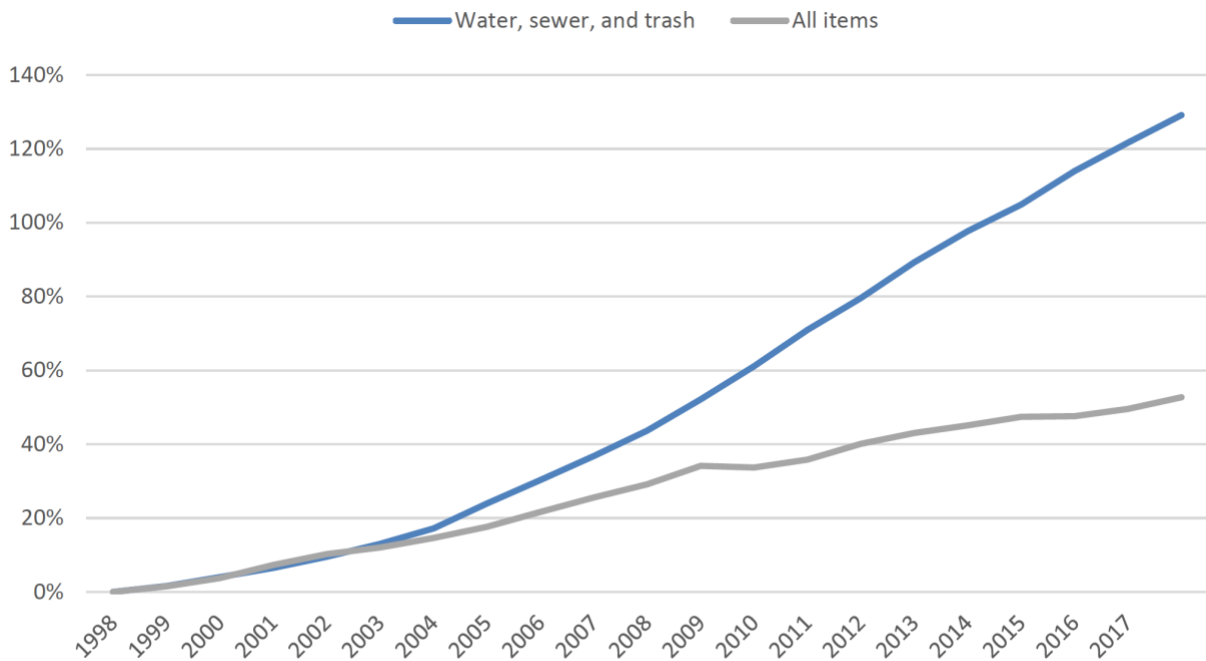
National Rate Trends

For the past several decades, utility rate increases have significantly outpaced growth in the Consumer Price Index (CPI). Between the mid-1980s and 2000, the increase in water and sewer

bills exceeded CPI growth by 50 percent.⁹⁰ More recently, the growth in utility bills relative to the CPI has become even more pronounced. Between 1997 and 2017, utility bills (water, sewer, and trash combined) increased an estimated 130 percent (4.3 percent per year on average), compared to 52 percent increase in the CPI (2.1 percent per year on average), as shown in Exhibit 13.⁹¹ Even more recent data (see Exhibit 14) shows average utility rate increases for water and wastewater services of roughly 80 percent as of 2020 compared to 2008 levels (5.1 percent per year on average), while the CPI increased a little over 20 percent over the same period (1.7 percent per year on average).

Exhibit 13. Annual Cumulative Increase in Household Costs for Water, Sewer, and Trash Compared to Increase in CPI for All Items (1997–2017)

Source: *Developing A New Framework for Water Affordability and Financial Capability Assessment in the Water Sector*⁹²



Source: Bureau of Labor Statistics, 2017

Note: BLS does not separately report costs for trash, water, and sewer in its summary tables/data.

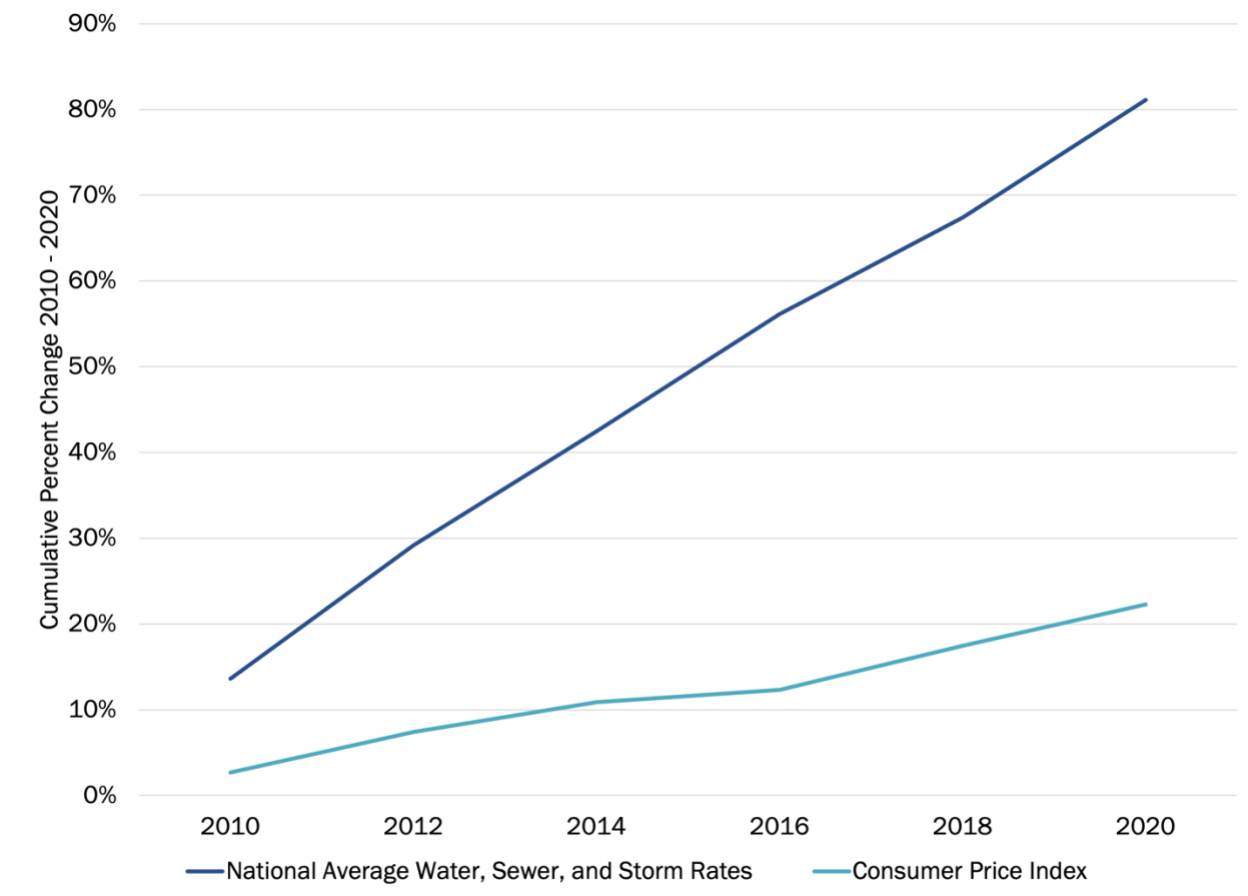
⁹⁰ Van Abs, Daniel J. Evans, Tim. Assessing the Affordability of Water and Sewer Utility Costs in New Jersey. Jersey Water Works. Final Report: September 2018.

⁹¹ R. Raucher, PhD. And J. Clements (Corona Environmental Consulting), E. Rothstein, CPA (Galardi Rothstein Group) and J. Mastracchio, CFA and Z. Green (Raftelis Financial Consultants), Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector, (April 17, 2019)

⁹² *Ibid.*, page 1-4.

Exhibit 14. Cumulative Water and Wastewater Utility Average Rate Increases Relative to 2008 vs. CPI (2010-2020)

Source: ECONorthwest and Galardi Rothstein Group, using data from 2020 Water and Wastewater Rate Survey published by American Water Works Association (AWWA) and Raftelis



Percent change is cumulative increase relative to 2008 baseline.

Drivers of Rate Increases

As discussed in prior subsections, historical cost increases have reflected landmark regulations and growth in system operation and maintenance needs. Other cost factors include growing infrastructure replacement needs and investments to address climate and seismic resiliency.

National data suggests that operating expenses account for a substantial share of utility rates: between 45 and 67 percent of water and wastewater rates typically go towards operating expenses depending on the year and the scale of the service provider, with an average of 52 percent for water utilities and 54 percent for wastewater utilities in 2020.⁹³ However, growth in operations and maintenance costs are not the only reasons for increasing rates.

One study, which estimated an average 43.2 percent increase in water and wastewater bills from 2012 to 2021, pointed to regional differences in what was driving those increases (e.g., utilities in the Western U.S. investing in new water supplies due to drought vs. those in the Northeast facing aging pipe and treatment systems) and noted that “the most significant water

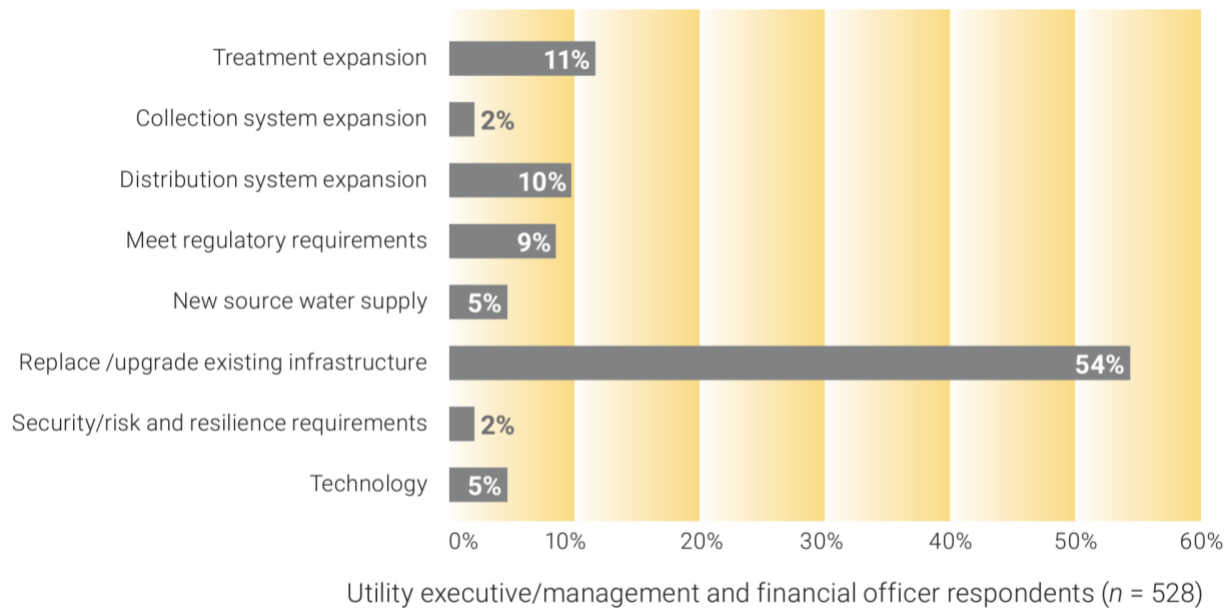
⁹³ American Water Works Association and Raftelis Financial Consultants, Inc., *2021 Water and Wastewater Rate Survey*.

rate increases have been in response to specific capital investment needs,” including wastewater treatment plant upgrades to address water quality issues and a major water system improvement plan.⁹⁴

A range of drivers within capital-related costs is also reflected in data from a national survey regarding anticipated capital expenditures by water utilities, as shown in Exhibit 15. Based on this survey, more than half of expected capital expenditures for water utilities in 2020 were expected to be for replacements and upgrades to existing infrastructure, but expansion of treatment, collection, and distribution systems as well as new source water supplies were expected to account for a total of 28 percent of capital spending.⁹⁵

Exhibit 15: Anticipated Water Utility Capital Spending in 2020

Source: American Water Works Association⁹⁶



©AWWA 2020 State of the Water Industry

While the specific drivers vary for each community and over time, recent examples from two Oregon communities illustrate the role that capital improvements can play in driving rate increases in some communities:

⁹⁴ Bluefield Research, “Up 43% over Last Decade, Water Rates Rising Faster than Other Household Utility Bills,” August 23, 2021. <https://www.bluefieldresearch.com/ns/up-43-over-last-decade-water-rates-rising-faster-than-other-household-utility-bills/>

⁹⁵ American Water Works Association, *State of the Water Industry 2020*, page 21. <https://www.awwa.org/Portals/0/Awwa/Professional%20Development/2020SOTWReport.pdf>

⁹⁶ *Ibid.*

- In a 2017 rate study for the City of Newport, FCS GROUP estimated that debt payments on needed capital improvements would increase revenue requirements for water and sewer by 4 to 8 percent per year over 5 years.⁹⁷
- A 2018 Water Affordability Assessment Report from the City of Hillsboro highlighted the role of rising capital costs in recent and projected rate increases: “...over the last few years, rate increase percentages have been on the rise due primarily to rising capital costs caused by needed improvements to the existing infrastructure and also the construction of a second water supply system to serve Hillsboro’s growing needs. A Water Rate Study is underway and will most likely suggest double-digit percentage rate increases until 2026.”⁹⁸

Taken together, the data suggest that utility rates are increasing faster than inflation largely due to factors that are unrelated (or minimally related) to growth, including increasing operation and maintenance costs and the need to replace or upgrade older infrastructure to meet current standards or due to deterioration, though growth-related costs can contribute to rate increases in some cases. Consequences for rate affordability and capital funding choices are discussed in Section 2.2.4.

Other System-Wide User Charges

In the context of fiscal constraints, local governments have increasingly implemented other types of user fees for a broader suite of government services such as parks, streets, public safety, and others. In 2018, research by the City of Salem found 50 cities charging such user charges (sometimes referred to “operating fees”) across the state, for various services.⁹⁹

While on-going user charges or operating fees have helped to fill the void created by tax limitations, they typically rely on political/public support for fee increases, and as discussed later in this report (Section 2.2.4), fee levels are approaching unaffordable levels for larger segments of the population. Limitations on fee increases often mean that the fees for some services such as transportation and parks may only be sufficient to fund ongoing operation and maintenance costs (e.g., pavement preservation), as opposed to large-scale capital projects.

⁹⁷ FCS GROUP, “Water, Sewer & Storm Rate Study,” Prepared for the City of Newport, 2017.

<https://www.newportoregon.gov/dept/fin/documents/WaterSewerStormRateStudy2017v6.pdf>

⁹⁸ City of Hillsboro Water, “Affordability Program Assessment Report,” October 2018, page 3.

⁹⁹ Sustainable Services Revenue Task Force Report, City of Salem (2018).

2.2 SDCs' Role in Local Infrastructure Funding

2.2.1 Perspectives From Oregon Jurisdictions

As noted previously, the Oregon SDC Act was intended to provide a mechanism for recovering growth-related infrastructure costs from new development and to avoid shifting those costs to existing rate and taxpayers. Local agencies participating in the Oregon SDC Project Focus Groups indicated that SDCs have become an increasingly important way to address these intergenerational equity concerns, particularly in fast-growing communities.

In focus groups, most service providers highlighted how important SDCs are to their ability to fund infrastructure. As detailed in Appendix A, participants noted several ways in which they play a key role in funding infrastructure:

- Growing communities rely heavily on them, and they are a key part of delivering infrastructure in new growth areas. (Slower growing communities see less SDC revenue and need to rely on other sources.)
- Some service providers highlighted SDCs' importance in contributing to major infrastructure projects that might not have been possible without that contribution.
- Parks and transportation providers in particular noted SDCs' importance for leveraging other funds (e.g., matching funds for state and federal infrastructure grants).
- Those with utility rates highlighted the importance of SDCs to balance out reliance on user rates, and highlighted equity considerations from putting the cost of capacity increases on existing users.

2.2.2 SDCs as Part of an Infrastructure Funding Plan: Examples From Oregon

This section summarizes examples from a number of jurisdictions and situations—urban growth boundary expansion area funding plans, a citywide transportation funding strategy, and funding for major water supply capacity increases—to give a sense of how SDCs contribute to funding local infrastructure in Oregon.

Transportation Funding Plans

Washington County Urban Growth Boundary Expansion Areas

As part of preparing an Infrastructure Funding Plan Toolkit for Washington County as a resource for future infrastructure funding plans for new urban growth areas, ECONorthwest compiled information from several infrastructure funding plans completed for newly urbanizing areas across Washington County. As shown in Exhibit 16, the contribution from SDCs (including the County's Transportation Development Tax (TDT), which is a form of SDC, and supplemental SDCs for some areas) varies substantially between the different expansion areas. The funding plans also include a variety of other sources. Some are simply other

mechanisms for development to contribute, including developer contributions/requirements, a “supplemental fee,”¹⁰⁰ and a local improvement district where the assessment is being paid off as homes are sold. Most, but not all, include some contribution from another source that is not development-derived, such as grants; contributions from Washington County’s Major Streets Transportation Improvement Program (MSTIP), which is funded through a general fund allocation; Tax Increment Financing (TIF); and a utility fee surcharge.

Exhibit 16: Example Transportation Infrastructure Funding Plan Strategies

Source: “Infrastructure Funding Plan Toolkit: Guidance for Title 11 Concept and Comprehensive Planning,” Prepared by ECONorthwest for Washington County, October 2020. Original data compiled by ECONorthwest using infrastructure funding plans for each planning area.

Planning Area	Total Cost (in \$millions)	Transportation funding strategy
URA 6D – King City West	\$57.3m	<ul style="list-style-type: none"> Supplemental fee: 100% - offset by existing SDCs
River Terrace	\$149.6m	<ul style="list-style-type: none"> Private cost: 40% SDC citywide: 20% Developer contribution: 18% Transfers: 7% TDT: 7% Utility fee surcharge: 3% SDC subdistrict: 2% Grants: 2% Washington County share: unknown
South Hillsboro	\$225m	<ul style="list-style-type: none"> New tools: 39% Regional share (e.g., MSTIP): 34% SDCs: 27%
Evergreen	\$51.6m	<ul style="list-style-type: none"> Developer requirements: 95% TIF: 16% (surplus revenues identified)
South Cooper Mountain	\$112.4m	<ul style="list-style-type: none"> TDT: 27% Developer contribution: 27% New SDC: 24% MSTIP: 21% Other: <1%

Notes:

TDT = Transportation Development Tax (Washington County’s version of a transportation SDC)

MSTIP = Major Streets Transportation Improvement Program, a County program funded through a general fund allocation

The “New tools” listed for South Hillsboro include a Local Improvement District.

Another older example from Washington County is the North Bethany Transportation Funding Strategy. This strategy included up to \$10 million from the County’s MSTIP; over \$21 million from TDT; over \$22 million from a new, supplemental North Bethany Transportation System

¹⁰⁰ Some jurisdictions use using “supplemental fees” that are similar to area-specific SDCs but can combine projects from multiple infrastructure systems. These may be imposed as part of annexation agreements for new growth areas rather than implemented under SDC statute.

Development Charge; and over \$13 million in additional property taxes from a new North Bethany County Service District for Roads.¹⁰¹

While the reality may not always align perfectly with the infrastructure funding plan, this gives a sense of how SDCs can be combined with other funding tools to deliver infrastructure to serve new growth areas. Despite the variation in specifics, **development-derived funding accounts for the majority of the funding for infrastructure in these new growth areas, and SDCs specifically account for a substantial share of funding in most cases.**

City of Bend Transportation System Plan Funding Strategy

As part of the City of Bend's recent Transportation System Plan (TSP) update, ECONorthwest helped develop a Funding Strategy for how revenue from multiple sources would pay for capital costs as well as operations, maintenance, and programs (OM&P) with a focus on projects prioritized for near-term implementation (within the first 10 years of the planning horizon). Exhibit 17 illustrates one of two alternative funding strategies, showing how the available amounts from existing sources and potential new funding sources could be allocated to capital projects vs. OM&P, including existing funding commitments as well as priority new projects and programs. It shows that:

- Nearly all the existing state and federal funding plus local general fund allocations are being directed towards existing operations and maintenance responsibilities.
- Nearly all of the 10-year projected revenue from the existing TSDC was already committed to projects on the near-term capital improvement plan (CIP) list plus debt payments for past capital projects.
- Funding sources such as franchise fees play a comparatively small role in the overall infrastructure funding plan, but they were large enough to include as a relevant funding source.
- The City considered (and ultimately passed¹⁰²) a General Obligation (GO) bond to fund a citywide package of new projects.

¹⁰¹ Washington County, North Bethany Funding Strategy, October 10, 2021.

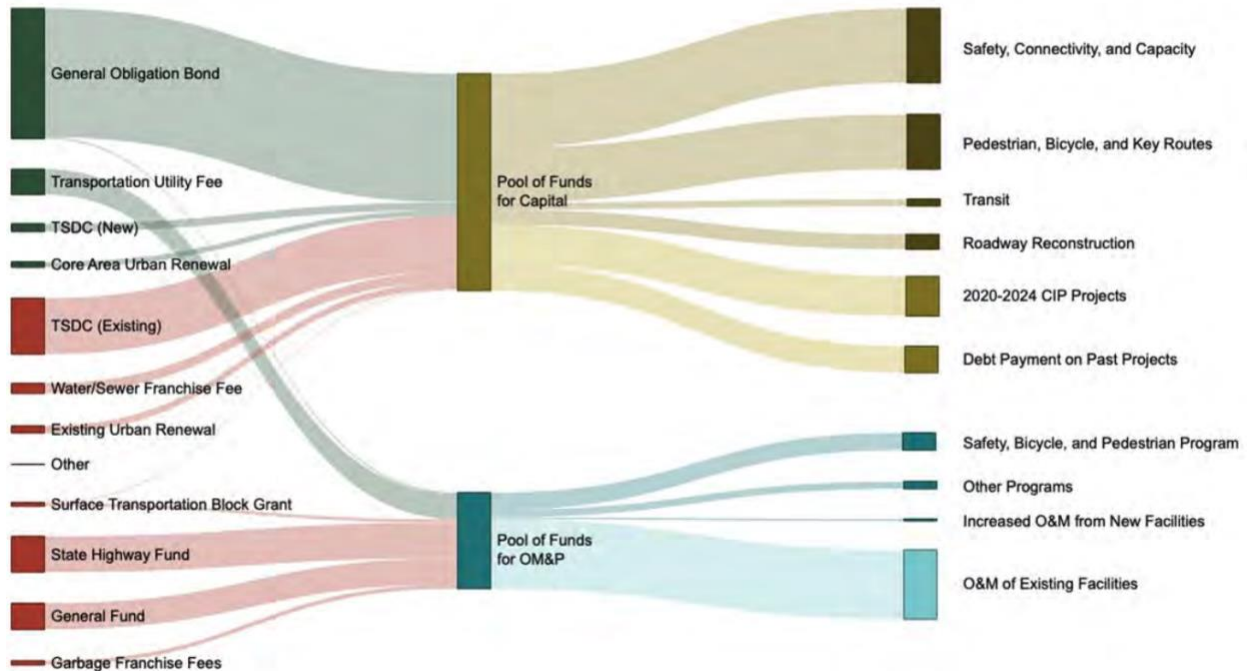
<https://www.washingtoncountyor.gov/lut/documents/north-bethany-transportation-funding-strategy/download?inline>

¹⁰² City of Bend, "2020 Transportation GO Bond - Thank You Voters!" <https://www.bendoregon.gov/city-projects/safe-travel>

Exhibit 17: Illustrative Diagram of Transportation Funding Sources and Uses for City of Bend Near-Term Funding Plan (2021-2030)

Source: City of Bend Transportation System Plan, Appendix A. Near-term Funding Action Plan, page A-2.¹⁰³

Figure A-1. Diagram of Near-term Funding Plan (Option A - Preferred), FY Ending 2021–2030



Source: Calculations by ECONorthwest.

The committee that advised on the TSP and Funding Strategy did recommend some increase to the City’s existing TSDC rates as part of the overall funding plan, but limited reliance on this solution due to volatility with development cycles, steep recent increases in TSDC rates and concerns about impacts to development and housing costs, and desire to leave room for use of supplemental TSDCs as a funding option for projects in UGB expansion areas.¹⁰⁴ The City has recently undertaken an TSDC update project that will determine the portion of projected capital improvements that will be funded through TSDCs.

Water Supply Funding

City of Wilsonville Development Moratorium

In the late 1990s, the City of Wilsonville adopted a moratorium on development due to lack of water system capacity. A city memo from that time notes that Wilsonville had relied on wells as its sole municipal water supply source until the 1970s when “it became evident that local aquifers would not be adequate to meet the needs of this growing community” and the City was granted a water right on the Willamette River. By the time of the moratorium, the

¹⁰³ Available online at <https://www.bendoregon.gov/home/showpublisheddocument/47764/637381859539770000>.

¹⁰⁴ City of Bend, *Transportation System Plan Appendix L—Initial Funding Assessment*, January 30, 2019. <https://www.bendoregon.gov/home/showpublisheddocument/47702/637372519699600000>

“unprecedented growth” had “increased peak water demand to the limit of the City’s ability to meet such demand, even with all the operational and capital improvements being undertaken.”¹⁰⁵

As part of the correction plan to allow development to go forward, the City needed to identify funding and financing to pay for costly water supply improvements. The City proposed to increase both water SDCs and water utility rates, using a voter-approved revenue bond to finance the improvements.

This example highlights the role of SDCs in helping fund critical capacity improvements to enable development to resume, even though SDCs reduce but do not eliminate the need to bond against rate revenue to build large infrastructure projects.

City of North Plains

In 2018, the City of North Plains faced water system capacity constraints that had the potential to limit additional growth. As noted in a memorandum from Business Oregon¹⁰⁶:

The City of North Plains storage capacity is limited due to substantial growth within the last few years. The current wholesale water agreement with the Joint Water Commission (JWC) requires the city to maintain a three-day supply at all times. The current storage is meeting the agreement requirements at this time, but the city will be in violation with construction of approximately 700 homes in the near future.

The construction of a new two-million-gallon pre-stressed concrete reservoir and pump station and implementation of a new Supervisory Control and Data Acquisition (SCADA) control system will provide for water storage needs through the 25 year Master Plan period, based upon the JWC agreement for required water storage.

As part of the funding strategy for the new project, the City increased water SDCs to pay for the new reservoir and associated financing costs.¹⁰⁷ The revenue from the updated SDCs was included in the financial proforma the city submitted to Business Oregon as part of its funding package.

2.2.3 Benefits to Developers

In a greenfield setting, and in situations where capacity constraints are severe, infrastructure investments to increase capacity may be essential to enable new development to occur, and SDCs are often a critical part of the infrastructure funding plan to pay for the new facilities or expanded capacity. The alternative could be that development cannot move forward or that the

¹⁰⁵ Jeff Bauman, City of Wilsonville Public Works Director, “Review of Wilsonville’s Water Supply Planning,” February 23, 1998, page 1.

¹⁰⁶ Memorandum to Chris Cummings, Assistant Director, Economic Development related to City of North Plains, Reservoir & Pump Stations Improvements (June 21, 2018).

¹⁰⁷ Water System Development Charges Methodology Report, Prepared for City of North Plains by Galardi Rothstein Group (December 18, 2017).

first development(s) must take on major infrastructure investments as a condition of approval or through a development agreement, making it more difficult to allocate costs among multiple benefitting property owners or developments. **SDCs may make greenfield development costs more predictable and more evenly distributed, but not necessarily higher, because SDCs may substitute for other forms of exactions or developer contributions.** Area-specific SDCs are sometimes used for this purpose, but jurisdiction-wide SDCs can play the same role if they are providing SDC credits to developers who build the needed infrastructure and charge SDCs to other developers that benefit from it.

SDCs collected across a broad area and used to fund incremental capacity increases in many locations may offer less direct substitution for property-specific exactions. However, the infrastructure they help to fund can contribute to the value of homes in the area generally, as discussed below.

Based on developer interviews, the value that developers ascribe to SDCs depends on how clear it is what is being funded through SDCs and how critical the funded projects are to enabling development to occur.

2.2.4 Benefits to Residents

Amenity Value of Infrastructure

There is strong evidence that living in a community with functioning infrastructure has value to future residents.

- There is substantial literature demonstrating the value of parks to nearby residents. A review of 33 studies suggests that: a) property values are higher closer to parks, b) the price premium is higher for larger parks, and c) the price premium is higher for “passive” parks than for “active” parks.¹⁰⁸
- There are also studies that show a positive relationship between bicycle and pedestrian facilities and home values.¹⁰⁹ Others show negative economic impacts from transportation delays.¹¹⁰

Mitigating Utility Rate and Property Tax Increases

Existing residents also benefit from SDCs by reducing the need for jurisdictions to increase utility rates, pass General Obligation (GO) bonds that increase property taxes, or implement other funding mechanisms that could increase their costs. **While not all of a jurisdiction’s capital needs are related to growth and eligible for SDC funding, being able to draw on**

¹⁰⁸ John L. Crompton. 2020. “Impact on property values of distance to parks and open spaces: An update of U.S. studies in the new millennium.” *Journal of Leisure Research*, 51(2): 127-146.

¹⁰⁹ See, for example: Shi, Wei, “Impact of Bike Facilities on Residential Property Prices” (2017). TREC Friday Seminar Series. 110. https://pdxscholar.library.pdx.edu/trec_seminar/110

¹¹⁰ Transportation Research Board. 2001. NCHRP Report 436. Economic Implications of Congestion. National Cooperative Highway Research Program.

SDCs for costs that are eligible means less cost needs to be allocated to ratepayers or property owners. Without SDCs, existing residents may have to pay for capital improvement projects related to growth through higher utility bills or property taxes.

Utility Cost Impacts Due to Capital Projects

As discussed in Section 2.1.4, utility rates have increased over time. Even with those increases, they typically account for a small percentage of household income and are small in comparison to housing costs (rent or mortgage and other costs of homeownership). However, given the number of other expenses that households must cover, even a small percentage of household income (e.g., less than 10 percent for a lower-income household) can be unaffordable.¹¹¹

In Oregon, a recent League of Oregon Cities rate survey shows an average of roughly \$99 per month (about \$1,200 per year) in water and sewer rates for a typical single-family home,¹¹² which is roughly 1.8 percent of the state’s median household income.¹¹³ **However, while utility rates may not be problematic for a median-income household, they can be burdensome for low-income households because utility rates and costs do not generally scale with income.** National data suggests that 20 percent of households (as of 2019) and closer to 24 percent of households (in 2021) were spending more than 4.5 percent of their household income on water and sewer bills.¹¹⁴ A 2018 survey of water customers in the City of Hillsboro found that 10 percent of customers considered their rates so high that “paying them is a struggle.”¹¹⁵

Many jurisdictions attempt to mitigate affordability issues for their most vulnerable customers through payment assistance options for income-qualified households and/or seniors on fixed income who are unable to afford their bills. (For example, both Newport and Hillsboro, which were used as examples in Section 2.1.4, offer such programs.)

Given that, as described in Section 2.1.4, utility rates are already increasing faster than inflation in many places (mostly due to factors other than growth-related capital costs), even if growth-related capital costs account for a small share of total utility rates, they may layer onto other cost increases. And although utility rates are generally small in comparison to household income and housing costs, utility rate increases can disproportionately affect lower-income households unless the service provider provides a robust customer assistance program. To the extent that

¹¹¹ R. Raucher, PhD. And J. Clements (Corona Environmental Consulting), E. Rothstein, CPA (Galardi Rothstein Group) and J. Mastracchio, CFA and Z. Green (Raftelis Financial Consultants), *Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector*, (April 17, 2019). As described in this report, the approach to defining and measuring affordability is evolving, and there is not a clear agreed-upon standard of affordability for water and wastewater utility rates.

¹¹² Aljets Consulting. *2021 Water Rates Survey Report*. December 2021. League of Oregon Cities.

¹¹³ Median household income for Oregon is \$65,667 based on 2016-2020 American Community Survey data.

¹¹⁴ McKinsey & Company, “US water infrastructure: Making funding count,” November 24, 2021, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/us-water-infrastructure-making-funding-count>

¹¹⁵ City of Hillsboro Water, “Affordability Program Assessment Report,” October 2018, page 3.

SDCs reduce the need for utility rate increases, they can benefit existing residents through lower costs, particularly lower-income households.

Property Tax Impacts Due to Capital Projects

While the details can vary among communities, a few recent examples illustrate the magnitude of property tax increases that could be due to new bonds for funding infrastructure projects:

- The City of Bend GO Bond discussed in Section 2.2.2, for example, had an estimated cost of \$170 per year for an average-value home in the City.¹¹⁶
- Tualatin Hills Park and Recreation District's 2008 bond measure established a \$0.34/\$1,000 of assessed value levy,¹¹⁷ which translates to roughly \$100 per year for an average-value home (using an average assessed value for improved residential properties in Washington County of \$295,978 as of the 2021/22 tax year¹¹⁸).

The magnitude of these costs suggests that the impact of GO bonds on affordability is likely modest for an average household and would account for a small share of an average household's budget. (With the example of Bend's GO Bond, with a median household income of \$67,973 as of 2020, the bond cost for an average-value home would account for roughly a quarter of a percent of a median household's annual income.) Because property taxes vary with property value, lower-income households would likely face somewhat lower costs from GO bonds to the extent that they live in lower-value housing, but the costs may not scale linearly with income because all housing costs typically represent a larger share of income for lower-income households.

¹¹⁶ City of Bend, "2020 Transportation GO Bond - Thank You Voters!" <https://www.bendoregon.gov/city-projects/safe-travel>

¹¹⁷ Tualatin Hills Park and Recreation District, *Making Good: 6th Report on Bond Measure Progress*, 2015, page 4. <http://cdn1.thprd.org/pdfs2/document3294.pdf>

¹¹⁸ Washington County Department of Assessment & Taxation, "Summary of Assessment and Tax Roll 2021-22," page 10. <https://www.washingtoncountyor.gov/at/documents/tax-year-2021-2022-summary-book/download?inline>

Part 3: How and Why SDCs Vary Across Oregon

Primary Contributors: Galardi Rothstein Group, FCS GROUP

3.1 SDC Rates: Geographic Variations and Trends

3.1.1 System Development Charges Across the State

Data Sources

Several organizations in Oregon publish compilations of SDC rates for multiple jurisdictions:

- The League of Oregon Cities (LOC) surveys its member cities every three years regarding their usage of SDCs and current rates. LOC's most recent available report is from 2020 based on survey data collected in 2019. LOC has statewide coverage and relatively high participation. In the 2020 report (2019 survey), 96 jurisdictions responded. The respondents were distributed across the state with overrepresentation in the Metro, North Willamette Valley, and Central Oregon regions and underrepresentation of cities in the Coast regions, South-Central Oregon, and the Gorge.¹¹⁹ Variation in which jurisdictions participate in a given survey can affect year-to-year comparisons. Because survey participants represent cities, there are some inconsistencies in how SDCs administered by special districts and other service providers are reported, given that city staff may not know the rates for all other service providers operating in their jurisdiction. Reported rates focus on single-family detached homes and an office building using example projects.
- The Homebuilders Association of Metropolitan Portland (HBA of Metro Portland) publishes estimates for most jurisdictions in the greater Portland region. The most recent estimates are from 2020 and include both single-family detached and multifamily summaries. Special district SDCs appear to be consistently reported, and special rates for specific subareas are listed in addition to citywide fees. However, the data does not attempt to provide estimated SDCs for an example multifamily project and may not reflect all the adjustments that would apply to a given project. For example, water rates are listed for the same meter size as listed for single-family development, which is typically not the case. The data encompasses most jurisdictions in Washington, Clackamas, and Multnomah Counties, as well as select jurisdictions in Hood River, Yamhill, and Columbia Counties, but it does not cover the balance of the state.¹²⁰
- The Oregon Building Officials Association (OBOA) sends annual fee surveys to members. The most recent available data dates from January 2018 and covers 39

¹¹⁹ League of Oregon Cities, "System Development Charges Survey Report," February 2020.

¹²⁰ Home Builders Association of Metropolitan Portland, "System Development Charges," <https://www.hbapdx.org/system-development-charges.html>

jurisdictions in various parts of the state. The data covers single-family detached, multifamily, and commercial office development using example projects.¹²¹

Given that all available sources are at least two years old and that some sources may not capture all special district or county SDCs, FCS GROUP collected data on current (mid-2022) SDC rates from jurisdictions across the state. To allow for historical comparisons, FCS GROUP collected data from jurisdictions that were represented in the oldest LOC survey data available, from 2007, which included a robust number of respondents.¹²² Research was based on a combination of fee schedules published on City websites and direct communication with City staff. The 2022 data include regional and district charges that apply in the researched cities, to the extent data were verifiable. Where jurisdictions have area-specific SDCs, the 2022 data collected reflects the citywide rate and does not include supplemental area-specific fees.

To make effective comparisons between jurisdictions, the 2022 SDC calculations are based on the same single-family residence used in the LOC survey, as described in Exhibit 18.

Exhibit 18. Sample Survey Residence

Source: League of Oregon Cities, System Development Charges Survey Report (February 2020), page 3

Single-family, 3-bedroom home	Amount	Units
Lot size:	9,000	sq. ft.
Building size:	2,000	sq. ft.
Development value:	\$190,000	
Land value:	\$60,000	
Parking spaces:	2	
Water meter size:	¾	inch
Water flow (gallons/month):	6,000	
Fixture units:	16	
Number of employees:	N/A	
Impervious square footage:	1,000	sq. ft.

FCS GROUP did not collect additional data for multifamily SDC rates.

Who Charges and Who Doesn’t?

Most cities in Oregon charge at least one of the five allowable SDCs—66 percent of the 2007 LOC survey respondents charge SDCs in 2022.¹²³ Exhibit 19 shows the number of services charged among those researched, and the average population of those cities.

¹²¹ Oregon Building Officials Association, “OBOA Standards Committee,” <https://www.oregonbuildingofficials.com/standards>

¹²² LOC reports that 121 out of 242 Oregon cities (50 percent) responded to the 2007 SDC survey. Of the 121 respondents, 79 (65 percent) charged at least one SDC. Of the 121 initial respondents, updated (2022) SDCs could be verified for 76.

¹²³ In the 2020 LOC survey, which captured a different sample of Oregon cities, 82 percent of the 96 respondents reported charging at least one SDC.

Exhibit 19. Surveyed Cities Charging SDCs in 2022

Source: FCS GROUP

Cities Charging SDCs	Number of Services Charged						Total
	0	1	2	3	4	5	
# of Respondents	39	3	12	10	17	34	115
% of Respondents	34%	3%	10%	9%	15%	30%	100%
Total population	82,810	18,006	21,750	33,886	247,174	1,406,700	1,810,326
Average population	2,123	6,002	1,813	3,389	14,540	41,374	15,742

This sample data suggests that more populous cities are more likely to use SDCs than less populous cities. This pattern appears in both the most recent LOC data and the HBA of Metro Portland data.

As noted in the *Oregon SDC Study: Summary of Service Providers Focus Groups* (included as Appendix A), factors contributing to local decisions not to charge SDCs include:

- Little development activity.
- Political concerns about affordability or economic development.
- Developers required to install infrastructure directly via exactions.

How Do Rates Vary Across the State?

The cities included in the 2022 data are shown on Exhibit 20 by the total amount charged for the sample single-family detached residence described in Exhibit 18. Cities with no SDCs are largely (but not exclusively) located in eastern Oregon and away from major metropolitan areas. The highest tier of SDCs (between \$25,000 and \$50,000) are primarily found in the Portland Metro region, though the City of Bend and a few smaller communities, including Carlton, Philomath, Donald, and Newberg, also have SDCs towards the lower end of this range. While not directly comparable due to the age of the data, the 2020 data from the HBA of Metro Portland suggests that there are likely more Portland region jurisdictions with rates in this range than were included in the 2022 update by FCS GROUP. The charges for each city and each infrastructure system are listed in Appendix D.

Exhibit 20. Total Single-Family Detached SDCs by City in Oregon, 2022

Source: ECONorthwest, using data from FCS GROUP

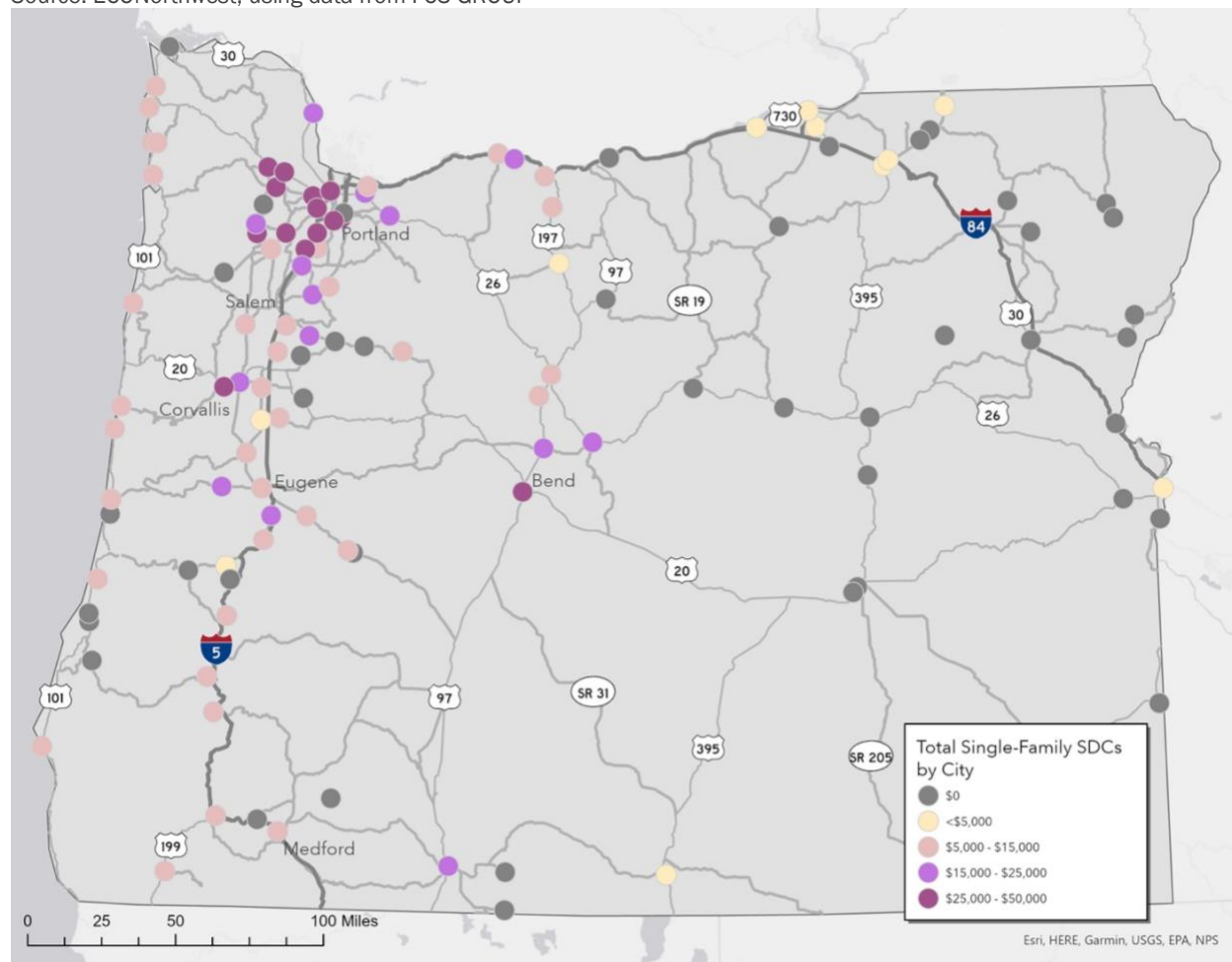


Exhibit 21 provides mean and median values by system.

Exhibit 21. Summary of City Mean and Median SDCs (2022)

Source: FCS GROUP

Mean and Median SDCs	Number of Cities	Mean	Median
Water	72	\$4,500	\$3,830
Wastewater	72	\$4,644	\$4,353
Stormwater	45	\$1,078	\$756
Transportation	51	\$4,433	\$3,489
Parks	55	\$3,829	\$2,535
Totals	76	\$15,047*	\$12,168

* This value represents the average of the totals for each jurisdiction, rather than a sum of the averages for each system.

For comparison, the 2020 LOC survey report found average total estimated SDC costs for single-family residential of \$13,135 for fiscal year 2018,¹²⁴ though, as noted previously, this figure likely undercounts special district and county SDCs. The average across the jurisdictions and special areas included in the HBA of Metro Portland 2020 data is just over \$27,000, though this data set is weighted towards larger jurisdictions and has little coverage outside the

¹²⁴ League of Oregon Cities, *System Development Charges Survey Report* (February 2020), page 17.

Portland metropolitan region.¹²⁵ The average of the total SDC rates for jurisdictions included in the January 2018 OBOA data was roughly \$14,500.¹²⁶ This variability suggests that aggregate statewide numbers from any given subset of communities may not be representative of the state as a whole.

Exhibit 22 shows the distribution of each SDC type as well as the distribution of total SDCs from the 2022 FCS GROUP survey data. The “box” captures the middle two quartiles of values for each set of data (25th percentile to the median in the lower box and median to 75th percentile in the upper box). Lines (“whiskers”) encompass the minimum and maximum range within the survey data.

Exhibit 22. Distribution of SDCs Among Surveyed Oregon Jurisdictions that Charge One or More SDCs by Infrastructure System (2022)

Source: ECONorthwest, using data from FCS GROUP

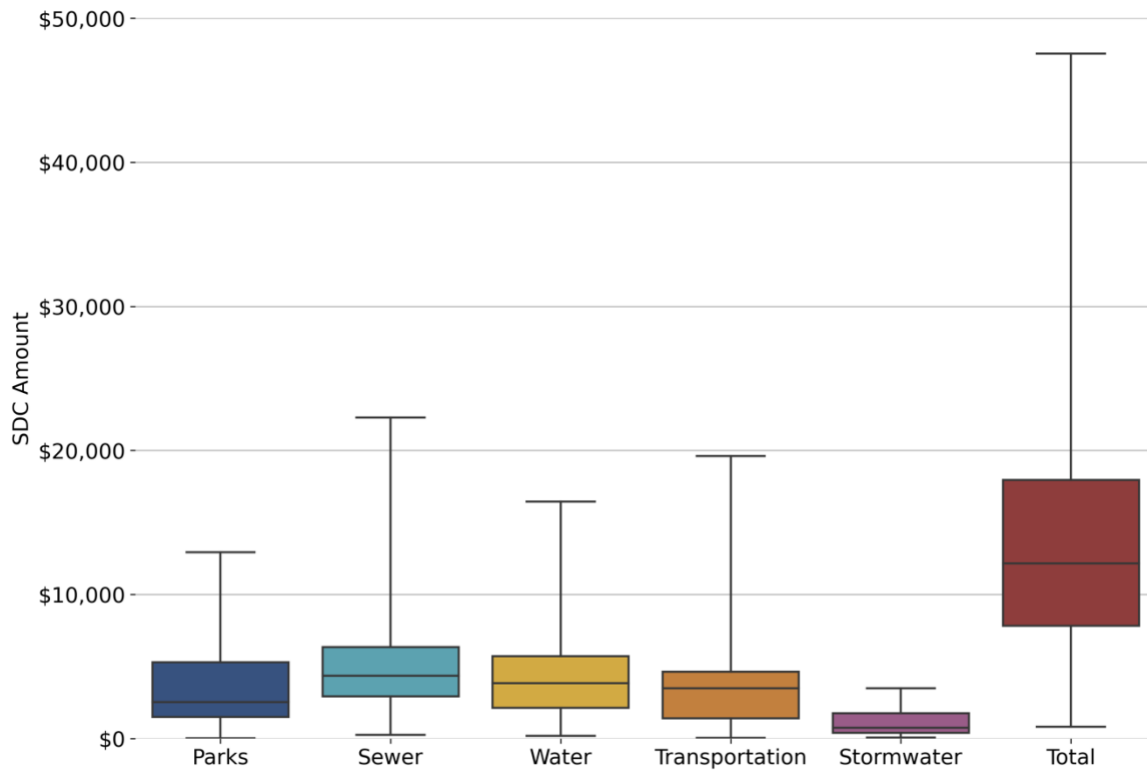


Exhibit 22 shows substantial variation in SDC amounts across all SDC types, with the greatest range for transportation and sewer SDCs. In total, the range is even more pronounced, from a low of \$819 (Lakeview) to a high of \$47,550 (Tigard).

¹²⁵ Home Builders Association of Metropolitan Portland, “System Development Charges,” <https://www.hbapdx.org/system-development-charges.html>

¹²⁶ Oregon Building Officials Association, “OBOA Standards Committee,” <https://www.oregonbuildingofficials.com/standards>. This figure excludes excise taxes, which are also listed in this data set.

Multifamily SDCs

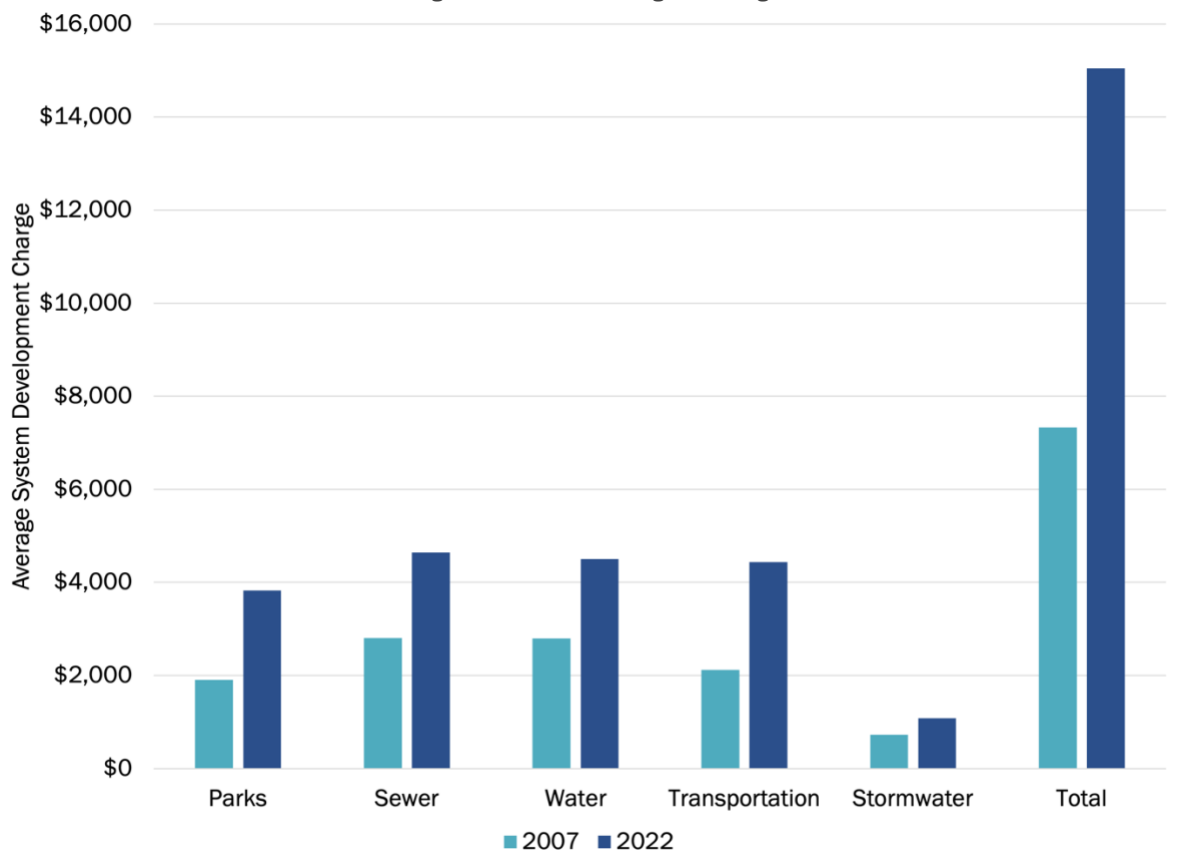
In OBOA’s 2018 survey data, the only readily available data that includes fees for example single-family detached and multifamily projects,¹²⁷ the ratio of the average multifamily SDC rate to the average single-family SDC rate is about 66 percent. The data shows there is a wide range of relationship between multifamily and single-family SDC rates.

3.1.2 Trends in System Development Charge Levels

Using the data on SDC fee levels by infrastructure system for 2007 and 2022 for the sample cities, Exhibit 23 shows fee level trends for each type of SDC.

Exhibit 23. Average SDC Levels by Infrastructure System for Surveyed Cities in Oregon, 2007 and 2022

Source: ECONorthwest and FCS GROUP using 2007 data from League of Oregon Cities* and 2022 data from FCS GROUP

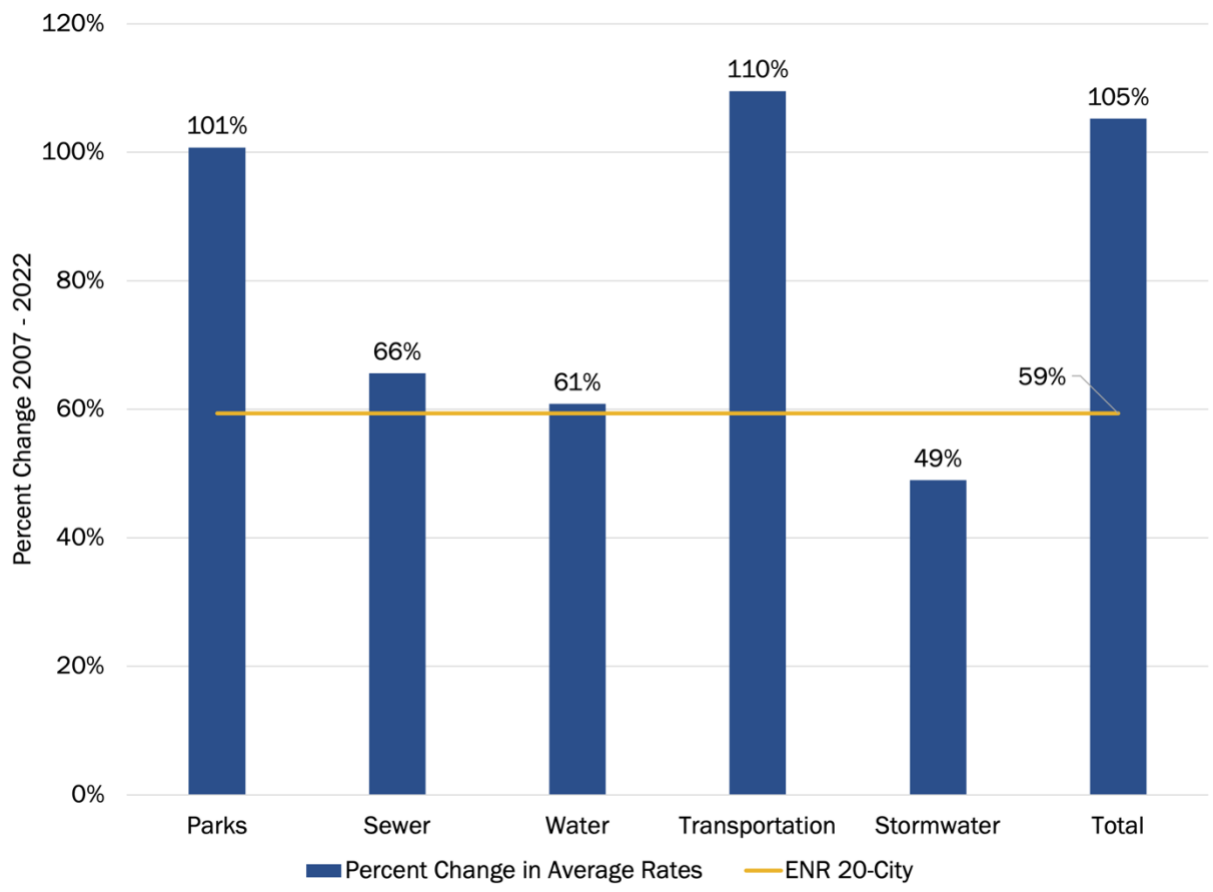


* Regional and district charges may not be consistently reported in the 2007 LOC data, which could result in an underestimate of average fees in that data.

¹²⁷ As noted above, while the 2020 data from the HBA of Metro Portland provides SDC rates for multifamily, the data does not attempt to provide estimated SDCs for an example project and may not reflect all the adjustments that would apply to a given project. For example, water SDC rates are listed for the same meter size as listed for single-family development, which is typically not the case.

Exhibit 24. Percent Change in SDC Levels by Infrastructure System for Surveyed Cities in Oregon Compared to Change in Construction Costs, 2007-2022

Source: ECONorthwest and FCS GROUP using 2007 data from League of Oregon Cities*, 2022 data from FCS GROUP, and Construction Cost Index data from Engineering News Record



* Regional and district charges may not be consistently reported in the 2007 LOC data, which could result in an underestimate of average fees in that data.

This shows that average SDC rates have increased across all infrastructure systems over the 15-year period. Most infrastructure systems have seen increases that have outpaced the increase in construction costs over the same period, in some cases by a substantial margin. As noted above, regional and district charges may not be consistently reported in the 2007 LOC data, which could exaggerate the magnitude of increases. On average, transportation and parks SDCs have increased most over the past 15 years, exceeding the increase in construction costs. This could be due to land values escalating faster than construction costs, as many parks service providers account for land costs in their SDC indexing methodology, and right-of-way acquisition costs can drive cost increases for transportation projects as well.¹²⁸ Water and sewer SDCs have

¹²⁸ While comprehensive statewide data on trends in land values is not readily available, there is evidence that land prices are escalating faster than construction costs at least in recent years and in areas experiencing strong development. For example, a review of documents related to SDC rate increases for some parks providers showed that in 2017, data from the Washington County Assessor’s office (within the Tualatin Hills Park and Recreation District) showed an increase in vacant land value of 19.54 percent, compared to the ENR CCI increase of 2.15 percent. Similarly, data from Deschutes County Assessor’s Office showed an increase in land values of 18.06 percent over the 12-month period ending December 2021, which was significantly higher than the ENR 20-city CCI of 7.36 percent.

roughly kept pace with construction costs, and stormwater SDCs have lagged behind construction costs. Appendix D provides tables containing the 2007 and 2022 data.

3.1.3 Comparison to National Data

A limited number of sources offer national data on impact fees. Duncan Associates' 2019 National Impact Fee Survey covers a sample of jurisdictions from many states. The Turner Center report referenced previously includes impact fee data for a number of California jurisdictions, but it does not include observations from other states.

The Duncan Associates Survey acknowledges a variety of limitations, including difficulty parsing impact fees that are referred to by different names or may be combined with other service fees, limited and non-random samples of which jurisdictions are included, and estimations of the cost of standard developer exactions for communities that use those in place of monetary impact fees. In addition, many impact fee surveys suffer from under-reporting of fees from regional service providers.¹²⁹ This appears to be an issue with the Turner Center data that makes it less appropriate to compare to Oregon data in the aggregate.

Beyond these limitations, it is difficult to draw useful comparative conclusions from national surveys because of differences in state statutes, terminology, and methodology constraints. As noted previously, Oregon's SDC law provides for water, wastewater, stormwater, transportation, and parks charges. Among neighboring states, while all authorize impact fees, there is variation in which systems are included:

- California authorizes the use of impact fees for any public facilities.¹³⁰ Survey results for California public agencies appear to under-count regional water and wastewater fees.
- In Washington, impact fees are authorized for only transportation, parks, fire, and schools,¹³¹ while water, wastewater, and stormwater fees are authorized in a different statute¹³² and are referred to general facilities charges. In surveys of impact fees, many Washington agencies report only their transportation, parks, fire, and schools impact fees, and exclude water, wastewater, and stormwater.
- Idaho also has two statutes. Impact fees¹³³ have been used historically for transportation and parks, although they are available for water, wastewater, and stormwater. Water and wastewater charges are typically charged under the authority provided in a separate statute.¹³⁴ These fees are generally less cumbersome to administer than "impact fees," although a 2015 supreme court case¹³⁵ essentially prohibits the inclusion of future

¹²⁹ Duncan Associates, "2019 National Impact Fee Survey," August 18, 2019.

¹³⁰ CGC 66000

¹³¹ RCW 82.02

¹³² RCW 35.92.025

¹³³ Authorized in IC §§ 50-10

¹³⁴ IC §§ 67-82

¹³⁵ NIBCA v. City of Hayden

facilities costs in the charge calculation—a methodology constraint not present in Oregon (or Washington or California).

These challenges undermine the value of comparing Oregon to its neighboring states in terms of total impact fee amounts. In the 2019 Duncan Associates survey, for example, cities such as Olympia and Tumwater reported no water, wastewater, or stormwater “impact fees” when in fact they have robust general facilities charges. Olympia also has a park impact fee which was not included. The totals for the five Oregon-comparable services should be \$25,663.03 for Olympia and \$20,119.30 for Tumwater—not the \$4,830 and \$3,853 shown for each, respectively.

There are also differences between states in the availability of state funding for infrastructure and the constraints on alternative local funding sources, which can lead to different levels of reliance on impact fees.

3.2 Key Factors Affecting SDC Rates

As illustrated in Section 3.1.1, SDC rates vary substantially across the state. As shown in Exhibit 25, these variations are the result of a multitude of factors including both internal decisions made by local governments and external factors that impact the relative costs of building infrastructure across the state and in different service delivery and infrastructure contexts. Internal factors include both infrastructure planning and funding decisions “upstream” of the SDC methodology that impact local governments’ total infrastructure investment needs and the portion of costs that may be eligible for SDC funding, as well as decisions specific to the development of the SDC methodology and final rate-setting. Key external factors include regional construction market conditions and local construction cost factors (e.g., soils or geotechnical requirements), service provider scale and efficiency (e.g., regional vs. individual service provider), and infrastructure-specific considerations.

Exhibit 25: Factors Affecting SDC Rates
 Source: Galardi Rothstein Group, ECONorthwest



This section summarizes some of the key factors that lead to differences in SDC rates across Oregon. While each factor—and its potential impact on SDC rates—is discussed individually, the collective decisions and factors are ultimately reflected in the adopted SDC rates. For example, a community with a larger, more expensive transportation system capital plan may have a similar SDC than another community with a smaller capital plan if other funding sources (e.g., voter approved taxes) are used to fund a portion of the improvements. Similarly, the impacts of different individual SDC methodology decisions may be neutralized by other decisions upstream or downstream (i.e., at the time of rate-setting). Because survey data shows that there are significant variations in SDCs across the state, this section provides some insights into what may drive those differences.

3.2.1 Broad Infrastructure Planning and Funding Decisions

Infrastructure System Plans and Capital Project Needs

As discussed in Section 1.2.2, Oregon SDC statutes allow local governments to charge SDCs for five broad types of infrastructure: water, wastewater, stormwater, transportation, and parks.

Furthermore, local governments are required to prepare a capital improvement plan or comparable plan prior to the establishment of an SDC, assuming a forward-looking “improvement fee” is to be included.

Capital planning for all five SDC-eligible infrastructure systems generally involves preparation of broader system plans (e.g., master plans, public facilities plans, or transportation system plans) to determine future investment needs and priorities based on an in-depth technical evaluation and input from regulatory agencies and the local community.

Water, sewer, and stormwater master planning efforts are largely technical exercises, where state and federal permitting and other requirements drive the need for facility design, sizing, and quantity. While discretion is involved in selecting among different technologies, siting facilities, and prioritizing improvements for these systems, some decisions are beyond local control, due to the need for state and federal regulatory compliance. For transportation, while Oregon Department of Transportation (ODOT) standards and transportation planning rule requirements can influence project design and prioritization in communities with state highway facilities, local governments generally have discretion in setting level of service standards and prioritizing improvements for city streets to align with local goals. Local governments also have discretion in planning for a park system that aligns with community-defined goals around livability and equity.

Because the system plans generally set the stage for the SDC project list, decisions made as part of the broader system planning process can impact the size and cost of the project list as the service providers seek to comply with regulations and be responsive to community stakeholders engaged in the planning process. Even if only a portion of the project costs are allocated to SDCs, a larger, more expensive project list can increase SDC levels. Developer focus groups conducted as part of this study indicate a strong perception that differences in locally established service levels and project priorities for parks and transportation facilities drive differences in SDCs for these systems in particular.

Overall Infrastructure Funding Choices

As part of their financial planning process, service providers may make decisions to utilize other non-SDC funds up front (i.e., before embarking on an SDC update) for a specific project or group of projects, which then reduces the list of potential projects that may end up on the SDC project list. For example, if there is support by the local community, a GO bond may be used to fund a recreation center or a group of high-profile transportation projects. However, given the political challenges and legal or financial limitations associated with other potential local funding sources, it can be more difficult to implement other local funding options than to maximize the use of SDCs for eligible costs, within the bounds of state law and legal precedent.

Additionally, many transportation capital plans include projects on state highways that serve as local arterials through cities. Many cities decide to include only the “local” share of such project costs, intending to leverage the participation of the Oregon Department of Transportation in funding those projects. These up-front funding decisions may have a direct impact on SDCs if they result in reduced SDC-eligible costs.

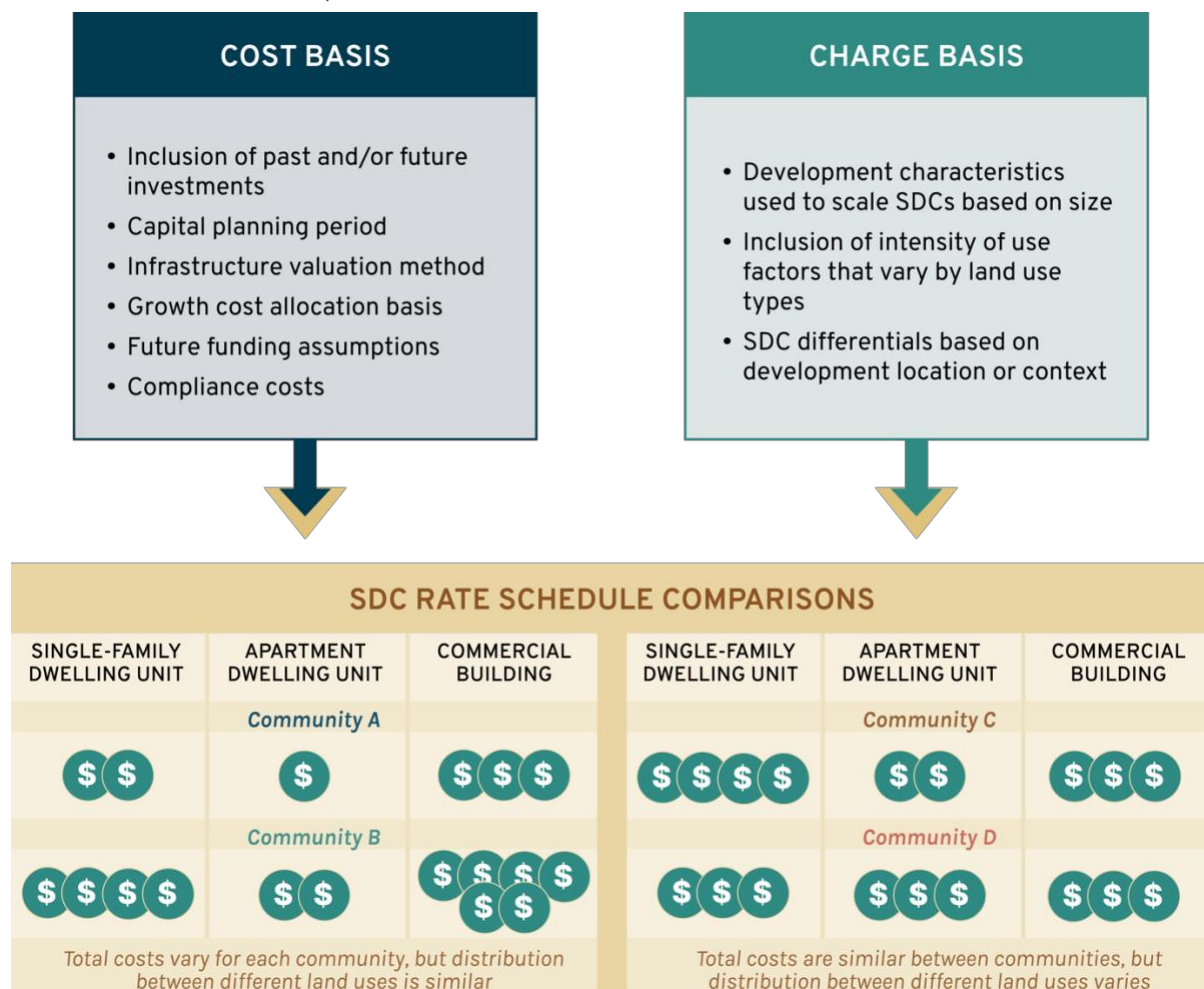
3.2.2 SDC Methodology Factors

An SDC methodology has many individual components, and within the framework of Oregon SDC law, local governments have flexibility in selecting approaches to each methodology component to balance local objectives and data availability. Methodology component choices may be grouped in two primary areas: 1) decisions related to the total infrastructure costs to be recovered from SDCs (the “cost basis”), and 2) decisions related to how the SDC costs will be allocated across different development types, sizes, and contexts (the “charge basis”).

As shown in Exhibit 2, cost basis decisions generally impact overall SDC levels. A community with a higher cost per unit of growth (as is the case with Community B) has higher SDCs across all development types, compared to Community A, which is assumed to have a lower cost basis. On the other hand, decisions related to the charge basis tend to impact relative fee levels within a given development type (e.g., residential or commercial) and across development types, locations, and contexts. In the example in Exhibit 2, Community C charges a lower cost per unit for multifamily relative to single-family, while Community D charges a uniform SDC for all homes of a given type.

Exhibit 26: Example of SDC Methodology Choices and their Impact on SDC Rates

Source: Galardi Rothstein Group, ECONorthwest



This section provides a high-level summary of individual methodology components, choices, and the general impacts of each choice. However, as mentioned previously, it is the collective decisions and factors that are ultimately reflected in the adopted SDC rates, and some individual component choices may be offset by other decisions within the methodology, as well as upstream and rate-setting decisions.

Cost Basis

As mentioned previously, the “cost basis” is the total cost that the SDCs are intended to recover. Development of the cost basis involves a number of methodological decisions, beginning with selection of investments to include in the SDCs, the methods for placing a value on those investments, assumptions related to future funding sources, and basis for determining an equitable share of capacity costs for new development. Key decisions impacting the SDC cost basis are discussed below and their potential impact on overall SDC levels.

Selection of Investments to Include in SDC Cost Basis

Reimbursement, Improvement, or Combined SDC Methodology

As discussed in Section 1.2.2, an SDC methodology can include a reimbursement fee, an improvement fee, or a combination, so the first cost basis decision is whether to include existing or future system capital investments, or both. This is generally a technical decision based on whether existing facilities have capacity beyond existing development service demands (a requirement for a reimbursement fee) and whether that capacity is sufficient to satisfy future growth needs entirely, or if additional improvements are also required.

In many communities, the cost of existing facilities (per unit of service capacity) is lower than the cost of providing the same amount of capacity in the future due to greater availability of grant funding historically, new design standards which make construction of planned improvements more costly, cost inflation, and other factors. Therefore, SDCs based on a stand-alone reimbursement fee methodology are likely to be lower than SDCs that use stand-alone improvement or combined reimbursement and improvement fee methodologies.

Reducing the Size of the Improvement SDC Project List

Improvement SDCs may vary among communities due to upstream planning and funding decisions (as discussed in 3.2.1), but also internal decisions to reduce the SDC project list by including projects planned for a shorter time period or a more focused and prioritized list. As noted in *Oregon SDC Study: Summary of Service Providers* (Appendix A), some communities described using “funded” and “unfunded” project lists or working to narrow and prioritize a project list that would align with the maximum SDC amount the community was comfortable charging (often a fee level comparable with other SDCs in the region).¹³⁶

¹³⁶ It is worth noting that projects assumed to be “unfunded” will remain unfunded (which also has implications for SDC credits as discussed in 1.6.2) if not included on SDC project list or another funding source is identified.

Assigning Costs or Values to Investments

Costs Estimates for Improvement Fees

The costs for planned projects used in the improvement fee calculation typically represent planning level estimates from system plans, brought current to the time SDCs are calculated and adopted based on a construction cost index. Future cost escalation (from the time the SDC is calculated to the time a project is constructed) is typically addressed through periodic updates to the project list or SDCs tied to a construction cost index, as allowed by statute. However, as noted in *Oregon SDC Study: Summary of Service Providers* (Appendix A), many communities indicate that their SDCs have not been indexed every year or at all since initially adopted, so variation in indexing practices is likely a factor in SDC differences.

Approach to Valuation of Existing Facilities for Reimbursement Fees

While the SDC statutes refer to “the value ... or the cost of the existing facilities”¹³⁷ in calculating a reimbursement fee, a specific valuation basis is not prescribed. In fact, there are a wide range of valuation approaches used in Oregon and across the country for SDC calculation purposes. For example, the American Water Works Association M1 Manual (Principles of Water Rates, Fees, and Charges) lists four common approaches for valuation of existing system facilities for calculation of SDCs: 1) original cost, 2) original cost less accumulated depreciation, 3) replacement cost new, 4) replacement cost new less depreciation.¹³⁸

Reimbursement fees based on original cost less depreciation tend to generate the lowest fees of the options (all things being equal), while replacement cost-based fees would tend to be higher. To the extent that local SDCs include a reimbursement component, the valuation method can impact the overall fee level and result in differences across communities.

Allocation of Costs to Growth (“Growth Share”)

The determination of the portion of costs that may equitably be allocated to growth through reimbursement and improvement SDCs is primarily a technical process that involves consideration of upstream planning targets and other technical information. As discussed in Section 1.5.1, the system plans establish facility design standards and service delivery targets for each system. These targets form the basis for how system capacity and existing and future user demands are measured, which then allows for existing system facility and future improvement costs to be allocated to growth.

While there are some methodological differences in how local governments approach allocation of costs to growth, the upstream planning decisions along with other technical considerations generally have a greater influence on the allocation of costs to growth and resulting variations in SDC fees. Nevertheless, a high-level summary of the technical process is provided along with potential differences in approaches, given the importance of this methodology component to

¹³⁷ ORS 223.304(1)(a)(D)

¹³⁸ Principles of Water Rates, Fees, and Charges, Seventh Edition, American Water Works Association, Denver, CO, 2017, page 332.

development of the cost basis and because it lays the groundwork for understanding different “charge bases” (discussed later in this section).

System Capacity/Demand Measures

Measures of capacity and demand vary by infrastructure system. At a very high level, water systems must be able to deliver water to users under various demand conditions, so production and delivery facilities are generally designed based on peak water demands. Wastewater and stormwater facilities need to be able to collect and treat wastewater or stormwater discharges from users consistent with standards established by regulatory permits, so capacity and demand measures may relate to both user wastewater flows and strengths. Demand for parks is measured by people, as potential users of parks and service targets generally relate to the desired quantity of facilities per capita and in some cases access measures (e.g., a neighborhood park located within a short walking distance). Transportation systems are designed to accommodate trips of all modes of travel (e.g., auto, bike, pedestrian, transit) generated by businesses and households throughout the week and at peak hours of travel.

Determining Growth Share of Existing Facility Costs

The service needs of existing users are estimated from various data sources and compared to the capacity of existing facilities under the same demand conditions. For example, water system production data can be used to estimate the peak demands of existing users, which is then compared to the peak hydraulic capacity of various facility types (e.g., production, storage, distribution) to determine if and how much capacity is available for growth. Similar processes are used for other infrastructure systems.

Existing facilities are generally assumed to first meet the service requirements of the existing users who have paid for their construction through contribution of user fees, taxes, and other mechanisms. Any capacity beyond existing user needs may then be allocated to growth through the reimbursement SDCs. If existing facility capacity is equal to or less than existing user service requirements, then there is no available capacity for purposes of developing a reimbursement fee, which means that growth needs will be met through future system improvements. Insufficient capacity for existing users also has implications for allocation of SDC project list costs (discussed below), as a portion of planned new capacity costs may remedy existing service deficiencies.

Existing system available capacity is generally evaluated system-wide or by major system function (e.g., water production, transmission, storage). Local approaches reflect system design and other considerations.

Project Cost Allocation for Improvement Fees

There are two conditions that need to be met for SDC project list costs to be eligible for improvement fee funding: 1) the improvement expands capacity, and 2) the capacity is needed to meet the service demands of future system users. Related to the first condition, the statutes clarify that improvements are considered capacity increasing if they provide new facilities (e.g., new pump stations, parks, roads, etc.) or if they increase the level of performance or service provided by existing facilities (e.g., new technologies that provide a higher level of water or wastewater treatment, park amenities that expand the number of users that may be served, etc.).

As mentioned previously, determining what portion of new capacity costs may equitably be allocated to future system users depends on the amount of capacity needed to meet their service demands (as determined by the service delivery targets and growth projections) and whether any of the new capacity costs are related to addressing existing users service needs (either by addressing existing system deficiencies or by replacing existing facility capacity serving existing users). Again, these are generally technical decisions that can be evaluated based on information developed as part of the system plans (upstream of the SDC methodology development). However, there may be some methodological variations to apportioning costs for dual purpose improvements which may influence improvement SDC fee level.

For example, if an 8" pipe that currently serves existing system users has to be replaced by a 12" pipe to accommodate the additional service demands of future users, the share of the cost for the 12" pipe that is attributable to growth could be based on the share of future flow from future users vs. existing users, the incremental cost of installing a 12" pipe vs. replacing an 8" pipe (if the pipe is nearing the end of its useful life anyway), or the cost of a new 8" pipe (the minimum pipe size that would be required to serve future development from a separate stand-alone pipe if the original pipe is still well within its useful life and would not require replacement within the planning period but for the need for additional capacity). These different approaches can result in different growth-attributable shares of project costs.

Assumptions Related to Other Funding Sources

Future Funding Assumptions for Improvement Fees

As discussed in 3.2.1, local governments generally exclude planned improvement costs earmarked for other known sources of funding (e.g., GO bonds). However, detailed information on other funding sources like grants or developer contributions may not be available years in advance of the planned project construction. Therefore, local jurisdictions may make assumptions about other potential funding sources based on past experience (which may vary across jurisdictions), or they may assume that SDCs will cover any local match that is required for grant funding. Reductions to the cost basis for other funding sources may lead to variations in SDCs, particularly if large, high-cost projects (e.g., major road improvements, aquatic centers, new water or wastewater treatment facilities, etc.) are assumed to be funded by non-SDC revenues.

Past Funding Sources for Reimbursement Fees

As mentioned in 1.2.2, reimbursement fees must consider gifts or grants from federal or state government or private persons (i.e., these are excluded from the SDC cost basis). Therefore, local governments whose existing facilities were funded with significant support from state or federal agencies or developers, may have relatively lower fee levels than those who have had to rely more heavily on local government sources.

Assumptions About Use and Costs of Debt Financing

Assumptions about long-term debt financing may also impact the SDC levels across jurisdictions. SDC revenue may be used for repayment of indebtedness;¹³⁹ therefore, some local

¹³⁹ ORS 223.307

governments include both financing and construction costs in the cost basis for the SDCs, while other may exclude debt-funded facilities from the SDCs altogether. In other cases, the reimbursement fee cost basis may be discounted for outstanding debt principal, or a future looking present value debt service credit may be incorporated into the SDC methodology.

Compliance Costs

SDC revenue may also be spent “on the costs of complying with the provisions of ORS 223.297 to 223.316, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.”¹⁴⁰ This has generally been interpreted to mean that an estimate of these allowed expenditures can be added to the total cost basis of the SDC for calculation purposes.

Many local governments track a broader range of SDC administration costs, including the following which also relate to SDC compliance:

- SDC Fund management.
- Management of project lists (planning, engineering, legal).
- Developer credit calculations and tracking.

Compliance costs are another area where diverse approaches and assumptions lead to differences in overall SDC levels. The types of costs included vary from the most basic (costs associated with developing methodologies and the required annual accounting) to more comprehensive SDC processing and potentially other related costs.

Many local governments include compliance costs in the calculation of the SDC cost basis, and the compliance cost portion of the total SDC generally ranges from 1-5 percent. Other local governments exclude compliance costs from their SDC cost bases altogether. For those service providers who do not add these costs into the SDCs, revenue is either diverted from project costs or funding must come from non-SDC sources.

Charge Basis

Overview

Perhaps the largest and most visible source of methodological variation in SDCs is the choice of charge basis: the specific characteristic(s) of a development used to determine its proportionate impact on an infrastructure system in relationship to the system-specific capacity or demand measures discussed previously. Development size, type, or class (e.g., single family residential, middle housing, apartments, commercial, industrial), and location or context are all potential characteristics that may form the basis for charging SDCs, as summarized in Exhibit 27.

¹⁴⁰ ORS 223.307(5)

Exhibit 27. Common SDC Charge Bases by Infrastructure System

Source: Galardi Rothstein Group and FCS GROUP

System	Capacity/Demand Measure	Development Size (Scaling Factors)	Development Type (Intensity of Use Factors)	Development Location Factors
Water	Average or peak water volumes	Water meter size, plumbing fixture units, building or dwelling area (square feet), lot size, class-specific characteristics*	Peak water demands or fire protection requirements	Infill vs. greenfield; base vs. upper pressure zones
Sewer	Wastewater flow volumes and pollutant loads	Water meter size, plumbing fixture units, building or dwelling area (square feet), class-specific characteristics*	Wastewater strength concentrations	Infill vs. greenfield
Stormwater	Stormwater quantity and quality	Impervious area, gross area (total lot size)	Water quality factors; run-off coefficients	Infill vs. greenfield
Transportation	Vehicle or person trips	Number of dwelling units, building or dwelling unit area (square feet), class-specific characteristics*	Trip rates and adjustment factors (e.g., trip length, pass-by trips)	Infill vs. greenfield; transit proximity
Parks	Persons or person hours	Number of dwelling units, building or dwelling unit area (square feet)	Persons per household; employees per square feet	Infill vs. greenfield

*Special characteristics specific to a particular land use type or class of service (e.g., number of school students, restaurant seats, vehicle fueling stations, car wash bays, etc.).

Oregon statutes do not prescribe charge bases, with a few exceptions noted in ORS 223.301.¹⁴¹ Instead, local governments may select approaches that balance data and administrative considerations, and policy objectives. Charge bases have evolved over time to include additional characteristics or factors that allow local governments to promote equity, economic efficiency, and affordability objectives while still maintaining a rate structure that ties fees to impacts. However, along with the greater complexity that results from inclusion of different charge basis factors, the need arises for greater transparency, education, and tools for estimating charges for specific developments.

While the charge basis does not, in theory, impact the total amount of revenue to be collected through SDCs (for any given cost basis) overall, it does impact fee levels and revenue recovery among different development types. Therefore, when comparing SDCs across communities for a particular development typography, different charge bases can result in substantially different SDCs.

Key decisions involved in selecting a charge basis are discussed below.

¹⁴¹ SDCs may not be charged based on the number of additional employees hired after a specific date without regard to new construction, new development, or new use of an existing structure by the employer or for increased use of a transportation facility that results from the production of marijuana on a property located in an exclusive farm use zone.

Characteristics Used to Scale SDCs Based on Development Size

Development size is an indicator of potential service demands or capacity needs, so an SDC charge basis includes one or more development characteristics used to estimate the potential scale of impact. The same scaling measures may apply uniformly across all development types, as in the case of water meter size or plumbing fixture units used for estimating water and wastewater demands, or the quantity of impervious area (used as an indicator of potential stormwater runoff).

In other cases, scaling measures may be specific to a type or class of development, where local or industry data establish a relationship between a size of a dwelling unit or building for commercial business, and estimated system demand (e.g., water demand, person trips, etc.). The wide range of development sizes makes the importance of scaling particularly acute for commercial and industrial customers. For example, a large, big box retail business would be expected to generate significantly more person trips than a small specialty retail store.

Scaling residential SDCs based on the size of the house (in square feet of living area or number of bedrooms) has become more common practice in the last decade. Scaled residential SDCs may be implemented for single family and multifamily development individually or applied uniformly to all residential development (regardless of the type of dwelling). A scaling structure can lead to significant differences in SDCs for difference sizes of dwellings, as shown in the three examples in Exhibit 28. The first two examples are tiered approaches applicable to a specific type of dwelling (i.e., single family or multifamily). Example 1 tiers are based on the size of the dwelling in square feet (sq. ft.), while Example 2 tiers are based on the number of bedrooms in the dwelling.

Exhibit 28. Sample Scaled Residential Parks SDC Structures

Sources: Galardi Rothstein Group, using data from Tualatin Hills Parks and Recreation Department, 2021/22 SDC Fee Schedule, City of Bend Systems Development Charges July 1, 2022–June 30, 2023 (pg. 5), City of Eugene SDC Methodologies (Table 7)

Example	Agency and SDC Category	SDC
1.	Tualatin Hills Park and Recreation District Single-Family SDCs per Dwelling Unit (Districtwide)	
	Tiered (Square Feet Category) Basis	
	<1,500 sq. ft.	\$9,088
	1,500-2,500 sq. ft.	\$10,717
	2,501-3,500 sq. ft.	\$12,217
	>3,500 sq. ft.	\$13,075
2.	Bend Park and Recreation District Multifamily Parks SDCs per Dwelling Unit	
	Tiered (Bedroom Category) Basis	
	0 Bedroom	\$4,207
	1 Bedroom	\$4,636
	2 Bedroom	\$7,517
	3+ Bedroom	\$9,738
3.	City of Eugene Residential Sewer SDCs	
	Base SDC per Dwelling Unit	\$485.63
	Scaled SDC per sq. ft. Living Area	\$0.1177

Exhibit 28 also provides an example of an alternative scaling approach that is applicable to all residential housing (single and multifamily alike). Rather than charging a flat rate per dwelling unit within a defined tier, each additional square foot of living area is charged an additional fee on top of a base amount applied to each dwelling unit based on a regression analysis.

Intensity of Use Factors That Differentiate SDCs Based on Development Type

In addition to development size, the type of land use or class of service may be a factor in estimating system demand.

For residential development, dwelling type (e.g., single family, duplex, apartment) is a common charge basis, particularly for systems where demand for service is measured directly by people (like parks), as the average number of occupants generally differ and may be estimated for local areas based on readily available U.S. census data. Differences in the number of occupants also may drive differences in demand for other infrastructure systems such as water, wastewater, and transportation systems, where local utility billing data and national trip generation surveys show differences in average demands by dwelling type.

Single family and multifamily dwelling types are the most common factor for differentiating SDCs. However, as zoning regulations continue to evolve across the state to support a broader diversity of housing types and configurations, consideration is often given to pricing SDCs for smaller and more affordable dwelling types, based on estimated system demands and policy objectives. Examples of other dwelling types include:

- Accessory Dwelling Units (ADUs) – This practice of charging reduced SDCs for ADUs is theoretically consistent with data from a 2014 ADU survey conducted by the Oregon Department of Environmental Quality (DEQ). The DEQ survey found average occupancy of all ADUs was 1.45 persons per household, which is generally significantly lower than the average occupancy for a single-family home.
- Middle housing – As a result of House Bill 2001, cities with population over 25,000 must allow development of up to four dwelling units on properties previously restricted to single-family housing. As the density of housing increases, system demands per dwelling unit also tend to decrease (relative to single-family housing) due to lower average occupancy and smaller lot sizes which may reduce stormwater runoff and water use per unit.
- Other housing types – As with middle housing, consideration of specific demands per unit for manufactured housing, cottage cluster, and tiny homes may also be considered as more data becomes available to evaluate relative occupancy rates and system-specific demands.

As with dwelling type, the intensity of system use/demand may vary greatly across different nonresidential (commercial, industrial, and institutional) development types. Many communities charge different transportation SDCs per 1,000 sq. ft. of building area for dozens of different nonresidential development types, reflecting national data on trip generation. For example, surveys indicate that an average convenience market generates significantly more trips per 1,000 sq. ft. of building size than a small specialty retail store. Similarly, some

communities differentiate water and wastewater SDCs for different classes of nonresidential development based on volume or wastewater strength factors. For example, a restaurant generally is assumed to demand more water/discharge more wastewater volume (and pollutant loads) per 1,000 sq. ft., compared to an office building.

For parks, intensity of use considerations impact both the allocation of growth-related costs between residential and commercial development and the SDC per 1,000 sq. ft. for different nonresidential development types. On average, a resident is assumed to have a higher potential park use than a business employee based on some limited survey data and theoretical estimates that take into account the hours per week available for park use. The number of employees per 1,000 sq. ft. of building area also differs among nonresidential development classes, which further forms the basis for charging SDCs in many communities.

Other intensity of use factors that may help establish different SDCs by type of development include seasonal variations in water use (i.e., peak water demands), stormwater quality, and transportation trip characteristics (like trip length and pass-by trip adjustments).

SDC Differentials Based on Development Location or Context

Development location is often considered in three contexts that can drive differences in cost of service or capacity needs: 1) infill vs. greenfield areas, 2) areas requiring specialized facilities (e.g., upper water pressure zones that require storage and pumping facilities), and 3) development context (considerations around density, mixed use developments and proximity to transit may impact service demands). Location-based overlay SDCs are relatively common in greenfield areas (e.g., City of Hillsboro) or in areas of major redevelopment (e.g., City of Portland Transportation SDCs). Accessibility to public transit—as in the case of transit corridors—may have a measurable impact on the cost of providing transportation system infrastructure in urban settings, so may be reflected in the SDC charge basis and lead to significant fee levels across jurisdictions.

3.2.3 Rate-Setting: Implementing a Reduced SDC

In addition to methodological and cost differences, some local governments choose to implement SDCs at levels lower than the calculated amounts. Implementing an SDC that is less than what is calculated in the methodology is an approach that is technically and legally simple, however, it sets up a situation where the SDCs are lower than required to fund the growth-related costs. Choosing a lower SDC requires no findings or justification, though many local governments will articulate a basis for the charges in the implementing resolution.

Implementing a lower SDC typically takes one of two forms. The simple form is implementation of the SDC at the desired level (i.e., some percentage of the calculated SDC). The more nuanced form is a multi-year phase-in schedule that may (or may not) terminate at the calculated SDC. This approach provides an initial concession to developers that may have planned projects in the pipeline.

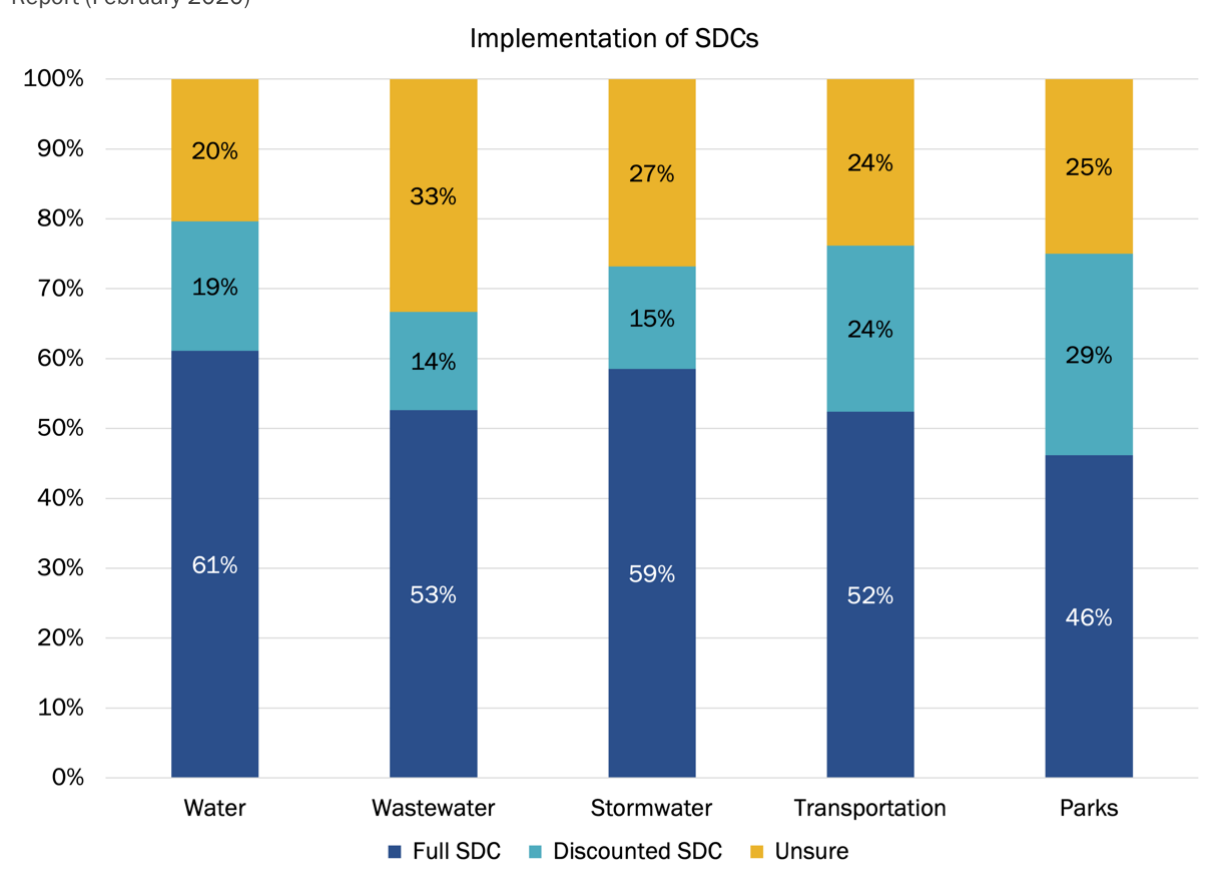
This is reflected in the *Oregon SDC Study: Summary of Service Providers* (Appendix A). Many communities noted charging less than the full amount justified in their methodology, generally

because of local elected officials' desire to remain competitive for development relative to other nearby communities, or because of concerns about the impact on housing costs and affordability. Other communities noted using phase-in periods when a change in methodology would lead to a notably higher rate. (As noted above, other jurisdictions adjust their SDC-eligible project list to achieve a lower cost basis and lower SDC rate instead.)

The LOC recently added questions on this subject to its annual SDC survey, asking whether the city adopted an SDC that was less than what was calculated in the methodology for each infrastructure system. As shown in Exhibit 29, a majority of cities report implementing the full SDC for most infrastructure systems, but 14 percent reported discounting a wastewater SDC, and 29 percent reported implementing a discounted parks SDC.¹⁴²

Exhibit 29. SDC Discounting Among Survey Respondents

Source: FCS GROUP and ECONorthwest using data from League of Oregon Cities, System Development Charges Survey Report (February 2020)



¹⁴² FCS GROUP analysis of data from League of Oregon Cities, System Development Charges Survey Report (February 2020). The possible responses were “yes,” “no,” and “unsure.”

3.2.4 Underlying Cost Drivers

Cost of Capital Improvements

Regional Cost Differences

While national and even international factors impact the costs of material and supplies, regional cost differences may impact infrastructure costs and SDC levels across the state. Regional cost factors may include the following:

- Rural areas may have less access to labor and supplies, particularly during busy construction periods, which may drive-up project costs. This is particularly acute in areas where limitations in affordable workforce housing further limit the pool of local contractors.
- Land values vary significantly.
- Differences in geology impact costs of grading and excavation.

The rising cost of labor has created upward pressure on project costs for all types of projects throughout the state. However, Central and Eastern Oregon seem to be impacted disproportionately because of a shortage of local contractors. This shortage limits the number of bids received for a project, and the limited number bidding contractors increases the pricing power of those who do bid.

Infrastructure-Specific Cost Drivers

Different kinds of infrastructure projects incur different kinds of costs, and different kinds of costs are subject to different market forces. Examples of specific cost factors by infrastructure system include:

- Pipe is a major cost driver of water, wastewater, and stormwater projects, and the cost of pipe has risen dramatically in recent years.¹⁴³
- Land is a significant cost factor for many park and transportation infrastructure projects, and land values in many areas have risen substantially more than construction cost indices in some years.¹⁴⁴

Beyond the costs of materials and land, infrastructure systems may be impacted by varying types of regulatory requirements that result in more costly facility designs (e.g., seismic resiliency standards and water and wastewater treatment requirements).

¹⁴³ According to data reported by the Bureau of Labor Statistics the producer price index for plastic construction products (primarily, PVC pipe) increased almost 30 percent in 2021 (January to December).

¹⁴⁴ For example, in 2017, data from the Washington County Assessor's office (within the Tualatin Hills Park and Recreation District) showed an increase in vacant land value of 19.54 percent, compared to the ENR CCI increase of 2.15 percent. Similarly, data from Deschutes County Assessor's Office showed an increase in land values of 18.06 percent over the 12-month period ending December 2021, which was significantly higher than the ENR 20-city CCI of 7.36 percent.

For water SDCs, securing new and expanded sources of supply are a significant cost component in most SDC project lists. Available water sources vary significantly across the state and the cost of developing new sources vary based on the type, location, and other factors.

Cost Escalation and Timing of Indexing Rates

As described in Section 2.1.2, construction costs have escalated rapidly in the past two years as measured by the ENR Construction Cost Index (CCI) (both the 20-city average and Seattle indices). Many local governments use one of these indices to adjust their SDCs each year in accordance with statute. However, these increases may not yet be incorporated into the SDCs shown in Appendix D, as many cities adjust SDCs annually, but the timing of updates and the timeframes used to calculate the index vary.

Service Delivery Structure

SDC variations across the state may reflect differences in service delivery due to economies of scale for different types of service providers. The cost of producing a gallon of water or treating a gallon of wastewater may be less for large regional utilities compared to single-utility service providers.

Part 4: SDCs and Housing Costs

Primary Contributors: ECONorthwest

4.1 Overview

Part 4 of the report focuses on the relationship between SDCs and housing costs, including:

- How and to what extent SDC costs are passed on to housing consumers, and which other entities absorb those costs (“**SDC cost incidence**”).
- How **SDC costs compare to other costs of housing development**, including land, labor, and materials for construction, permitting, and development review costs, carrying and financing costs, cost of building on-site infrastructure (where applicable), etc., and how this varies for different types of housing.
- How and to what extent **SDC costs affect overall housing costs** and the **housing options** delivered by the private market, including **differential impacts** for housing at different sizes and price points.
- How SDC cost incidence varies for **market-rate and affordable housing** development.

The findings in Part 4 draw on a combination of published literature (both theoretical and empirical studies); case studies of housing development under varying SDC rate structures; analysis of a range of hypothetical housing developments across different market conditions to show how SDCs impact housing types differently; and interviews with housing developers and homebuilders with experience building housing across Oregon, including single-family homebuilders and multifamily developers working in different market niches, and developers of affordable housing.

4.1.1 How SDCs Affect Development Outcomes: Overview

SDCs affect development outcomes in two primary ways:

- SDCs fund infrastructure that is needed to support growth, which can add value to development, or make development possible in newly developing areas or areas without sufficient infrastructure.
- SDCs are a cost imposed on development, which increases the cost of building new housing.

Both factors can influence housing costs and housing production. Section 2.2 addressed the value and benefits of SDCs to development. Sections 4.2 to 4.5 address SDCs as a cost that impacts housing development.

4.2 SDCs as a Cost in Housing Development: Conceptual Framework

4.2.1 Introduction

Who Pays? An Introduction to Cost Incidence

SDCs are one cost among many that developers typically pay as part of building housing. Like the other costs of housing development (e.g., land, construction labor and materials, design fees, financing costs, etc.), these costs are typically paid by developers initially and factored into their financial decisions. Although developers initially pay SDCs, they can recoup at least a part of the cost by passing on the cost to others involved in the housing development process or transactions. Thus, it is important to ask not only who pays SDCs, but who ultimately incurs the cost. This economic concept is referred to as **cost incidence**. Cost incidence describes who ultimately incurs the cost, which can be split among parties, or incurred entirely by one party.

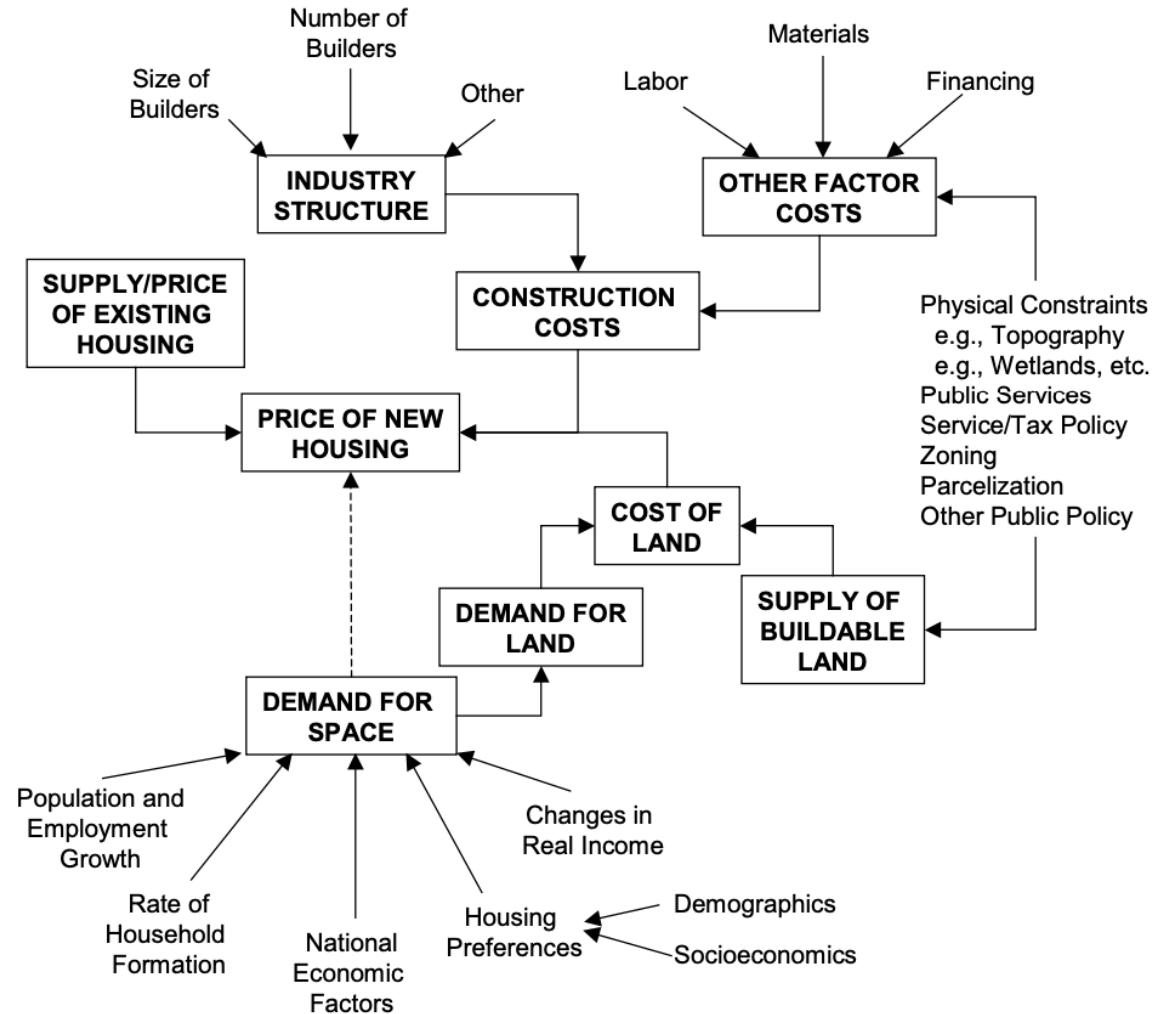
Housing Development 101

Understanding cost incidence in housing markets requires an understanding of housing development. Market-rate housing development is a business, and, like other businesses, must generate a financial return to operate. Generally, market-rate development will not occur unless the expected revenues from the project exceed the expected costs by a sufficient margin to create financial returns for developers, lenders, and investors that justify the risk of their investment. Developers must identify sites and development products that they expect to be financially feasible.

SDCs are one of many costs that developers take into consideration when determining whether a project is feasible, which is part of a broader decision-making process that considers density, location, design, and market conditions along with development costs. Exhibit 30 illustrates the different factors that feed into overall housing cost and price. SDCs are one of many jurisdictional policies and practices that affect development costs, including: speed and complexity of permitting; zoning regulations; and other direct costs such as permit fees and construction excise taxes. Developers often have an estimate of their SDC costs prior to securing land and financing, but the accuracy of this estimate can vary with the timing of the land purchase, the complexity of the development, and how much SDC rates change during the pre-development period. Developers need to weigh SDCs and other cost inputs against the sales prices or rents they are expecting to achieve on each project. Because SDCs costs are outside the developers' control, they must make choices about other aspects of the development to bring total costs and prices or rents into alignment.

Exhibit 30. Detailed Model of Housing Cost and Price

Source: ECONorthwest, originally published in "Cost Components of Housing"¹⁴⁵



For affordable housing developers, whose revenues are constrained to keep rents or sales prices affordable at specific income levels, and who are often (though not always) nonprofit organizations, SDCs are also one cost among many that must be covered either by the project's limited revenues or by other sources to cover any funding gaps. As with market-rate development, affordable housing developers must find ways to balance their costs against their combined revenues and subsidies, but their options are more limited. When costs are too high, they may modify the project to reduce costs, seek out additional sources of subsidy (though these are often competitive and higher per-unit costs can make projects less likely to receive the funding they need to move forward), or, in limited cases, adjust the targeted affordability levels to the extent that the funding sources allow.

¹⁴⁵ Nick Meltzer, Bob Parker, Rebecca Lewis & Sadie DiNatale, University of Oregon, Memorandum to HB 4079 Rulemaking Advisory Committee (RAC), October 20, 2016, page 3.

Other Drivers of Housing Costs and Affordability

As illustrated in Exhibit 30, the prices that consumers experience in the housing market are a function of both supply and demand factors. There is strong evidence whether and to what extent housing production keeps up with demand has a pronounced effect on the pace of housing price and rent increases.¹⁴⁶ The cost to build new housing affects both the minimum sale price or rent that is required to make development feasible and the amount of housing entering the market. SDCs, as one among many factors that influence the cost of producing housing, play a role in broader market factors that determine home prices and rents.

4.2.2 Economic Theory on Cost Incidence of SDCs

Economic theory on impact fees suggests that impact fees “shift the burden of financing new infrastructure from the community at large to the owners of developable land, developers, or buyers of new homes.”¹⁴⁷ Landowners may receive lower offers for their land, developers and their investors may receive lower financial returns, and/or homebuyers and renters would either pay more for housing or receive lower-quality housing.

How additional costs or taxes are distributed among buyers and sellers depends on each party’s relative sensitivity to prices. Economic theory suggests the party with fewer alternatives is less sensitive to change in price and would bear a greater portion of costs (absorb more of the costs) when additional costs are incurred. For example, the incidence is higher for consumers on tobacco and gas purchases when taxes increase because they have few substitutes (choices), while the producers bear less of the increased costs because they can find new customers and markets.^{148, 149}

Similarly, the theoretical impacts of SDCs can be understood in terms of alternatives and price sensitivity. Whether and by how much developers can pass on the cost of SDCs depends on market contexts.

- Because land’s location is fixed, **landowners** have few alternatives other than waiting for new offers from developers or policy changes that would improve the value of the land. The cost incidence for landowners depends on the availability of other developable land within the same market and how much SDCs vary between comparable pieces of

¹⁴⁶ See, for example, Up for Growth, “Housing Underproduction in Oregon,” January 28, 2019; Jared Bernstein et al, “Alleviating Supply Constraints in the Housing Market,” *The White House Council of Economic Advisers*, September 1, 2021 (<https://www.whitehouse.gov/cea/written-materials/2021/09/01/alleviating-supply-constraints-in-the-housing-market/>); and Josh Lehner, “Construction, Housing Supply, and Affordability,” *Oregon Office of Economic Analysis: Oregon Economic News, Analysis and Outlook*, February 15, 2022 (<https://oregoneconomicanalysis.com/2022/02/15/construction-housing-supply-and-affordability/>).

¹⁴⁷ Forrest E. Huffman, Arthur Nelson, Marc Smith, and Michael A. Stegman. 1988. “Who Bears the Burden of Development Impact Fees?” *Journal of American Planning Association*, 54(1): 49-55.

¹⁴⁸ William N. Evans, Jeane S. Ringle, and Diana Stech. (1999). “Tobacco Taxes and Public Policy to Discourage Smoking.” *Tax Policy and the Economy* 13, 1-56.

¹⁴⁹ Joseph J. Doyle and Krislert Samphantharak. (2008). “\$2.00 Gas! Studying the effects of a gas tax moratorium.” *Journal of Public Economic* 92, 869-884.

developable land. If developers have factored SDCs into their land budgets (the price they are willing to pay for land) before they acquire a property, it will constrain the price landowners are able to obtain for their land. So, landowners who sell at a lower price than similar locations with lower SDCs, are bearing some of the cost. Alternatively, they may choose not to sell.

- **Homebuyers and renters** are generally tied to a given regional housing market and sometimes to a specific submarket within the region based on employment, ties to family members or a school district, or other factors.
 - In tighter housing markets (or “sellers’ markets”¹⁵⁰), homebuyers and renters have fewer housing options; theory suggests they would bear a greater share of costs when there is strong competition for limited housing units. For example, in exclusive or highly desirable communities within a metropolitan area, studies show that the strength of the competition would allow developers to pass on more of the added costs.¹⁵¹
 - In communities with many similar options for new housing, the cost incidence is expected to be lower for homebuyers because they have many choices within a reasonable distance. Studies show this pattern in communities around a dense metropolitan area where households would be willing to consider housing in multiple nearby cities.¹⁵²
- **Investors, lenders, and developers** are unlikely to absorb SDCs by accepting lower returns except in very unusual circumstances or when SDC costs increase unexpectedly during development and cannot be passed on to others. Investors and lenders usually have other options to invest in across multiple markets and will avoid areas that generate lower risk-adjusted returns. Studies show that **developers** are less likely to absorb added costs in lightly regulated, fast-growing cities where they can quickly adjust their business strategies to target different housing markets.¹⁵³ However, developers are less likely to pass on the cost in more competitive markets with many developers and few development opportunities. When they are not able to achieve the expected prices or rents and financial returns fall below the expected rates, the developers absorb some of the cost of SDCs (as well as all a share of the other costs).

¹⁵⁰ Market where there are very few options for new housing relative to strong preferences and ability to pay for them.

¹⁵¹ Huffman, Nelson, Smith, and Stegman.

¹⁵² Richard K. Green, Stephen Malpezzi, and Stephen K. Mayo. 2005. “Metropolitan-Specific Estimates of the Price Elasticity of Supply of Housing, and Their Sources.” *American Economic Review*, 95(2): 334-339.

¹⁵³ Green, Malpezzi, and Mayo.

4.2.3 How SDCs Affect Development Decisions

Overview

Developers may balance costs and revenues in a variety of ways to adjust to the cost of SDCs, as described below. Which of these options are viable and which are most likely depends on timing, market conditions, and other factors, as summarized below. (As a reminder, this discussion focuses on how the cost of SDCs affects development decisions, while Section 2.2 discusses ways that the infrastructure funded by SDCs affects development.)

Exhibit 31. Summary of Potential Developer Actions to Cover the Cost of SDCs

Source: ECONorthwest

Developer Action	Limitations and Consequences
Seeking lower-cost land to build on or negotiating a lower price with the landowner	If SDCs are known early in the development process so that a developer can negotiate for a lower land price, and if there are many options for developable land, the cost incidence is likely to be greater for the landowners who would accept a lower price. Other landowners may not accept a lower price, choosing to hold off on selling their land, and absorbing some of the influence of higher SDCs through the delay. If land is already acquired or cannot be negotiated further, a lower land price is no longer an option. ¹⁵⁴
Seeking efficiencies on design and construction to lower cost	If SDCs are known before the housing design and finishes are determined or finalized, developers may choose to build smaller units, limit some aesthetic features or amenities, or use lower-cost building materials or processes (which could increase operating or maintenance costs over time). However, cost-saving decisions need to be balanced with households' demand for quality.
Adjusting unit size, finishes, and/or amenities to command higher sales prices or rents	Alternatively, developers can build larger units (for single-family homes), use higher quality products, or add amenities to justify higher prices and rents that can cover the cost of added features along with the cost of higher SDCs. The cost-saving approach could marginally increase the housing supply for lower-income households, while the quality-enhancing approach could marginally increase the housing supply for higher-income households.
Raising the asking prices or rents	<p>In both cases that change the value proposition, the cost incidence would fall, at least in part, on housing consumers, through lower value for their money or less availability of lower-cost housing options.</p> <p>Raising the asking price or rent for the finished housing without changing the design or features—which passes costs more directly to housing consumers—is a viable option only if there is sufficient demand among buyers and renters</p>

¹⁵⁴ Understanding cost incidence of SDCs within a land transaction is complicated by various business models and landownerships that exist. A vertically integrated developer that is also a long-term landowner would bear a greater portion of SDCs (at least within the context of land transactions) since SDCs would not be incurred until well after land acquisition. Business models that specialize in taking undeveloped land and making them “ready for development” by obtaining regulatory approvals (e.g., for new uses and lot divisions) could incur a relatively smaller cost incidence even in a market with many buildable lands because their “development-ready” lands offer more valuable and rare opportunities for developers.

Developer Action	Limitations and Consequences
Lowering expectations for financial returns	<p>of newly constructed housing, compared to supply that lower-cost options are not readily available.</p> <p>Because developers and investors will typically not pursue a development project if expected financial returns do not meet a particular threshold that justifies the risk of the investment, there are limited situations where SDCs will translate to lower return expectations. This is particularly true for investors and lenders who operate nationally—if one area offers lower risk-adjusted returns than other market areas, they will tend to place funds in areas that offer higher returns relative to their risks. However, SDCs can impact financial returns for market-rate housing development when they are significantly different than initial expectations.</p> <p>Most developers allow for some contingency funds to absorb unexpected cost increases because there is uncertainty in development and costs and revenues are often different from what is projected. However, once development is underway, developers have fewer options for adjustments to bring revenues and costs in line. Thus, when costs (including SDCs) unexpectedly increase during a project, developers must absorb those costs or make adjustments elsewhere if they still can.</p> <p>If unexpected cost increases are attributable to a policy choice by a public agency or local government, it can erode trust in that public agency, impact the feasibility of subsequent phases of development, and in some cases make developers less likely to build in that jurisdiction in the future.</p>
Delaying or abandoning the development	<p>If developers are not able to balance the costs and revenues, the development may not move forward, or may be put on hold. If higher SDCs result in less or slower housing production, pushing up the overall price of housing due to a supply/demand imbalance, its undesirable impact would be shared among all prospective buyers and renters of housing, new or existing, while existing homeowners would benefit from the higher housing prices.</p>

Findings From Developer Interviews

As captured in Appendix B, developers described a range of responses to SDC costs:

- Developers can rarely move a project forward that doesn't meet investor and lender return expectations. If SDCs contribute to making a project financially infeasible, the project will not be able to attract funding to move forward to construction. (See additional discussion in Section 4.3.4.)
- Developers tend to specialize in certain types and forms of housing (e.g., single-family vs. multifamily, mixed-use infill vs. suburban garden apartments), and report that they primarily respond to the market when choosing what to build. SDCs are generally not a major factor in determining what housing type a given developer will build or what market segment they will target (e.g., entry-level vs. luxury homes) except where the difference in SDCs is substantial or where the developer is flexible and the market is similarly strong for multiple housing options. However, developers may adjust their offering at the margins in response to SDCs, such as by building somewhat larger or smaller homes. Over time, if certain housing types or products become easier to build

(e.g., middle housing being authorized in many new areas) and/or more financially viable (e.g., increasing demand for walkable infill development), developers may adjust their business models to respond; SDCs can contribute to (or inhibit) those trends, but they are unlikely to be the sole reason for them.

- Land developers noted that SDCs are factored into homebuilders' pro forma calculations when they purchase lots to build on, which means they can affect the price/value of finished lots. However, some other developers noted that they tend to build on land they have owned for many years, and SDC costs do not factor into the land value or price.
- Many developers and builders report that SDCs are one of several factors when considering where to build. (Others, which can outweigh the importance of SDCs, include market conditions, land costs, and permitting speed/staff responsiveness.) When SDC costs are out of line with market conditions (i.e., achievable rents or sales prices are too low to allow developers to recoup the cost of SDCs), developers may look elsewhere. If there are other options in the area with lower SDC costs and comparable market conditions and land costs, developers may choose those areas instead. However, when there are few good alternatives, developing somewhere else isn't an option. In this situation, developers must find other ways to make development pencil or not pursue development at all.
- Most developers noted that the market determines what prices/rents are possible, but several gave examples where high SDCs caused them to push the upper limits of what the market would accept to achieve feasibility.
- Developers budget for SDCs and may plan for escalation to some extent and/or carry a contingency for increases, but dramatic and unexpected changes to SDCs, or lack of clarity about SDC rates up front, can mean money taken from other parts of the project or more total costs to cover.
- Because rents are fixed based on income for affordable (income-qualified, rent-restricted) housing development, developers of regulated affordable housing do not have the option to pass it on through rents. Costs are generally factored into funding applications to the extent they are known early. Affordable housing developers were more likely to rely on cost-savings and value engineering to balance SDC costs after funding is secured.

4.3 SDC Costs in Context: SDCs as a Share of Development Costs

SDCs are one cost among many that developers typically pay as part of building housing (e.g., land, construction labor and materials, design fees, financing costs, etc.). While most development costs (e.g., raw materials, financing, and specialized labor) are determined by a regional, national, or international markets, SDCs are determined at a local level through a governmental process, and they do not necessarily track other development costs.

To understand what portion of development costs SDCs comprise, ECONorthwest considered several different types of information:

- National data on costs to develop single-family and multifamily housing, including impact fees as one component of costs (Section 4.3.1)
- Oregon SDC rate data (from Section 3.1.1) compared to typical market-rate housing development costs in the state, accounting for variation by housing type and variation in other cost factors across several market areas in the state (Section 4.3.2)
- Data on SDCs and total development costs for example affordable housing developments in Oregon (Section 4.3.3)

4.3.1 National Data on Impact Fees Relative to Housing Costs

The National Association of Home Builders (NAHB) Construction Costs Surveys offer a national summary of impact fees and other development costs for single-family housing. NAHB collected construction cost data from builders since 1998 to understand the trends in various cost components of single-family housing. The breakdown of costs includes finished lot cost, total construction cost, financing cost, overhead and general expenses, marketing cost, and sales commission. Impact fees are itemized as one component of the costs, specifically a component of total construction cost. Impact fees were separated from other development fees, such as building permit fees and water and sewer fees and inspection costs.

The NAHB survey data shows that impact fees alone are a very small portion of total costs for single-family housing at the national level, **0.88 percent** of total costs.¹⁵⁵ Water and sewer fees and inspection costs are about as large. Impact fees as a share of total costs ranged between 0.41 percent and 0.96 percent in past surveys. The average impact fee in 2019 was 1.30 percent of construction costs (which do not include other development costs) and 0.80 percent of average sales price (which includes all development costs and developers' profit margin).

These findings, however, are underestimates of typical SDC share of total costs for three reasons.

¹⁵⁵ Carmel, Ford. *Cost of Constructing a Home*. NAHB Economics and Housing Policy Group. January 2, 2020.

1. The national average amount for impact fees reported in the NAHB survey may not be representative of a true national average. In addition to general issues related to sampling variability with a nonrandom sample, the sample in the NAHB survey would have included communities with and without impact fees. Thus, the calculated estimate is likely weighted downward by many observations of communities without impact fees. In contrast, the average numbers cited elsewhere in this report are averages only of places that charge impact fees.
2. It is unclear which impact fees are included in the self-reported SDC amounts. Some water and sewer impact fees may have been classified by respondents as water and sewer fees and inspection costs (a separate line item in the listed costs), some of which may capture water and sewer impact fees.
3. The estimate for SDC share of total costs is low because the reported average finished area of the home is 2,594 sq. ft., resulting in relatively high total costs. Impact fees would likely account for a larger share of the prices and costs for smaller units, which tend to have lower construction costs on a per-unit basis.

Another survey by NAHB and the National Multifamily Housing County (NMHC) in 2022 contains information on impact fees for multifamily projects. Fees charged when building construction is authorized, which could include impact fees and other fees (e.g., building permit fees), accounted for about **4.4 percent** of total costs across all multifamily properties, on average.¹⁵⁶ This suggests that the impact fee share of total development costs is likely somewhat less than 4.4 percent, on average, though no data is available to disaggregate these costs further to identify the share specifically from impact fees, and the survey included another cost category where impact fees may have been reported, making it more difficult to estimate the share from impact fees specifically. In addition, like the NAHB single-family data, the data behind this national average likely includes projects from communities both with and without impact fees and may be lower as a result.

The two surveys provide reference points on impact fee share of development costs across the U.S., but their limitations make them less useful to understand SDCs as a share of housing development costs in Oregon.

4.3.2 SDCs and Development Costs in Oregon

Data Sources

SDC levels, other development costs, and housing prices vary by housing type and region. There is no centralized data set that allows us to calculate SDCs as a percentage of development costs across a representative sample of completed market-rate housing development projects across Oregon. As a result, to understand the variation in SDC share of total development costs,

¹⁵⁶ Paul Emrath and Caitlin Sugrue Walter. Regulation: 40.6 Percent of the Cost of Multifamily Development. NAHB and NMHC. June 8, 2022.

ECONorthwest compared various SDC amounts to typical development costs across a range of housing types and a range of market conditions in different parts of Oregon.

- **SDC costs** for single-family detached housing referenced in this section are based on the 2022 data collected by FCS GROUP discussed in Section 1.4.1. The average SDC in the data was about \$15,050. As described in Section 1.4.1, the estimated typical SDCs for multifamily units are roughly 66 percent of the single-family SDC amount. Due to insufficient data for townhouses, ECONorthwest estimated typical SDCs for townhouses at 90 percent of the single-family SDC amount, based on a review of several examples and the consultant team’s professional experience.
- **Construction costs** are based on interviews with housing developers primarily operating in the Portland Metro region and reflect differences based on housing type and unit sizes. They are adjusted for each market area using national publications that provide regional cost indices.¹⁵⁷
- **Land costs** are based on research of recent land transactions in each market area.

SDCs as a Share of Costs for a Typical Single-Family Dwelling in Oregon

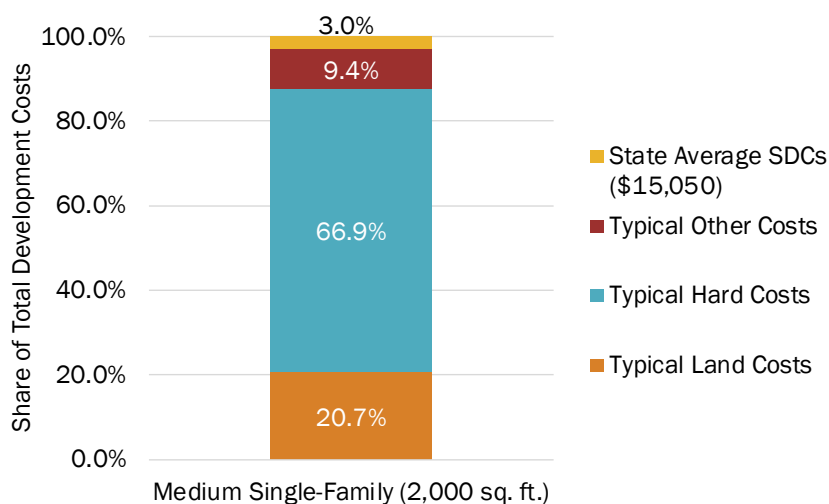
ECONorthwest’s analysis suggests that the average SDC rate for single-family housing in Oregon (roughly \$15,050 according to the 2022 data by FCS GROUP) would make up about **3.0 percent** of the total development costs of a typical, newly built, medium-sized single-family dwelling in a moderate-cost region in the state (e.g., the mid-Willamette Valley) as shown in Exhibit 32.¹⁵⁸ In comparison, land costs would make up an estimated 20.7 percent of total development costs, construction “hard” costs (labor and materials) about 66.9 percent, and other costs (e.g., financing, permit fees, design and engineering, survey, etc.) about 9.4 percent.

¹⁵⁷ RSMeans City Cost Index and the 2022 National Building Cost Manual, 46th Edition

¹⁵⁸ The example “Medium Single-Family Dwelling” assumes a 2,000 square-foot (sq. ft.) unit, a two-car garage, density of 6.7 units per acre, and development costs of \$479,000 per unit, excluding the SDC amount.

Exhibit 32. Components of Development Costs of Medium Single-Family Dwelling in a Moderate-Cost Area

Source: ECONorthwest



Variation in SDC Share of Costs by Housing Type

This section focuses on how SDCs costs would vary as a percentage of total development costs for a variety of housing types, using SDC and cost assumptions that approximate statewide averages. However, costs and specific SDC rates vary by city, and the findings below do not represent all communities.

To demonstrate how the SDC share of total development costs can vary across housing types, ECONorthwest evaluated six different example housing types that are found commonly across much of the state, as shown in Exhibit 33. These housing types illustrate the directional pattern of the relationship between SDCs and other development costs. ECONorthwest approximated typical construction and land costs for these housing types in different parts of the state. Among the housing types included in this analysis, the cost to build each unit tends to be lower for densely built housing types that require less land per unit and tend to have smaller unit sizes.¹⁵⁹ More detail on the example housing types and their typical development costs across markets are available in Appendix F.

¹⁵⁹ This pattern does not apply to high-rise multifamily construction in which higher-density multifamily housing can have higher per-unit costs than lower-density multifamily housing due to higher construction costs associated with materials used for high-rise buildings.

Exhibit 33. Evaluated Example Housing Types

Source: ECONorthwest

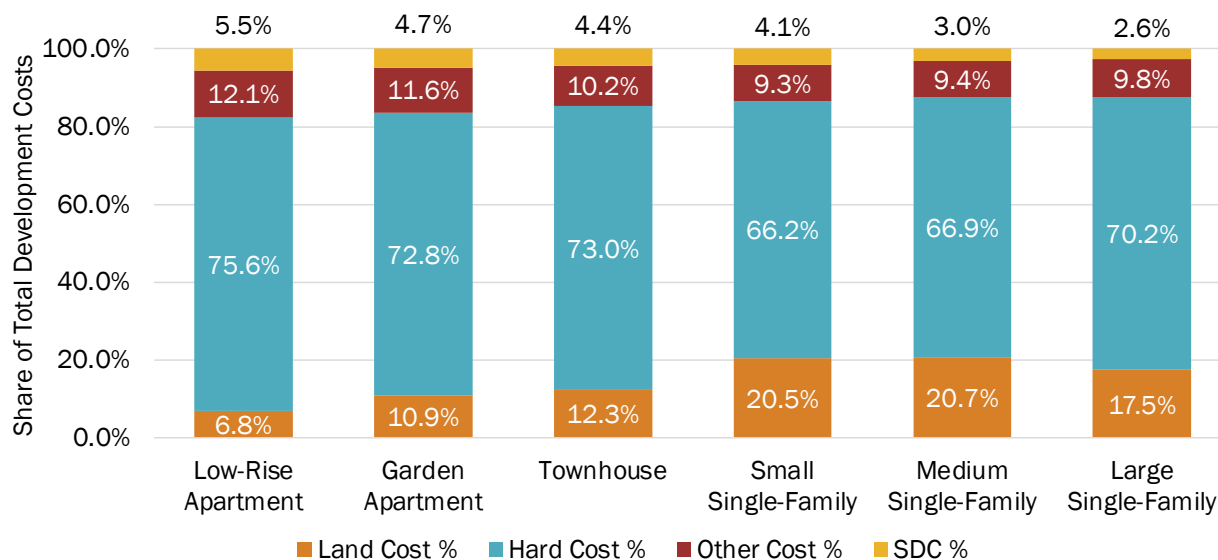
Example Housing Type	Building Height (Floors)	Density (Units per Acre)	Average Unit Size (Square Feet)	Parking
Low-Rise Apartment	3	55.0	738	1.0 Stalls per Unit (surface parking)
Garden Apartment	3	30.0	811	1.5 Stalls per Unit (surface parking)
Townhouse	2	18.2	1,500	Single-Car Garage
Small Single-Family	2	9.1	1,550	Single-Car Garage
Medium Single-Family	2	6.7	2,000	Two-Car Garage
Large Single-Family	2	6.7	2,650	Two-Car Garage

Exhibit 34 shows the share of total development costs that a given SDC amount could make up across housing types of different densities. Even with the adjustments to assumed SDC rates to reflect typical differences between single family, multifamily, and townhouse SDCs, **SDCs make up a greater portion of total development costs for housing types with lower per-unit construction costs when they are applied per unit.** For example, for the Low-Rise Apartment housing type—the highest density housing type in Exhibit 34—a \$9,933 per unit SDC would make up about 5.5 percent of the total development cost. For the Large Single-Family housing type—the lowest density example—a \$15,050 per unit SDC would make up only about 2.6 percent of the total development cost. Thus, SDCs make up a greater portion of more densely built housing types included in the analysis.

Other development costs range from 6.8 percent to 20.7 percent for land costs (a higher share for lower-density housing types), from 66.2 percent to 75.6 percent for hard costs (a higher share for higher-density housing types), and from 9.3 percent to 12.1 percent for other costs (generally higher for higher-density housing types).

Exhibit 34. Components of Development Costs in a Moderate-Cost Area, by Housing Type

Source: ECONorthwest



Notes: Assumes \$15,050 per unit SDC for single-family, \$13,545 per unit for townhouse, and \$9,933 per unit for apartments.

Variation in SDC Amounts in the Same Market

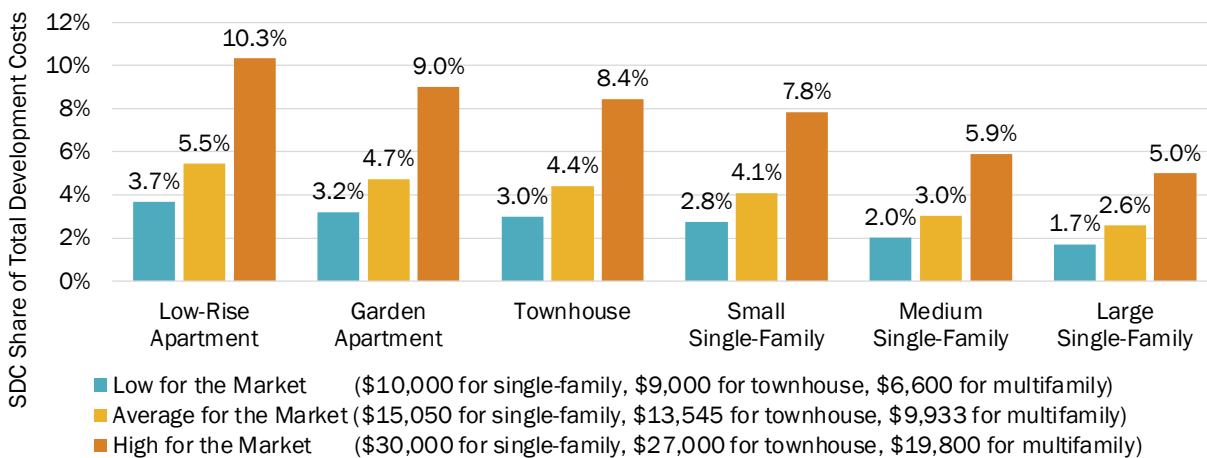
This section addresses how SDCs as a share of total development costs can vary for the same housing type and in the same market when SDCs vary between communities.

A geographic region can share similar market conditions, construction costs, and typical land costs, but different developments could be subject to different SDC rates when there are multiple jurisdictions in the same market or when a given jurisdiction differentiates rates geographically. For example, a city in a moderate-cost area could have an SDC amount close to the state average (\$15,050 per single-family unit), but another city in the same area could have an SDC amount that is much lower or higher (e.g., as low as \$10,000 or as high as \$30,000 per single-family unit, given the observed variation in the FCS GROUP data¹⁶⁰).

Exhibit 35 illustrates the impact of these variations on the SDC share of total development costs. **The variation in SDC rates across cities within the same general market area means the SDC share of total development costs can also vary widely.** In the example shown in Exhibit 35, the variation can be between 1.7 percent and 5.0 percent for a Large Single-Family housing type and between 3.7 percent and 10.3 percent for a Low-Rise Apartment housing type.

Exhibit 35. SDC Share of Development Costs in a Moderate-Cost Area, By Housing Type, By SDC Amount

Source: ECONorthwest



This illustrative example also shows that the difference in SDC rates has a more pronounced effect on lower-cost housing types. For example, for the Large Single-Family housing type, SDC share of development costs could be 5.0 percent with a high SDC and 2.6 percent with a low SDC. In contrast, for the Low-Rise Apartment housing type, SDCs could be between 3.7 percent and 10.3 percent of development costs.

¹⁶⁰ These SDC amounts are based on the 2022 survey results by FCS GROUP, after further segmenting the data into different market context areas.

Variation in SDC Structure

This section explores the importance of SDC structure. Specifically, it compares SDCs that are applied per unit (adjusted by housing type) to SDCs that are scaled by unit size, as discussed in “Characteristics Used to Scale SDCs Based on Development Size” on page 58.

Many SDC rates are applied on a per-unit basis, and their structure partly drives the variations across housing types. When SDCs are applied per-unit, SDCs make up a smaller portion of total costs for housing types with larger unit sizes and higher development costs.

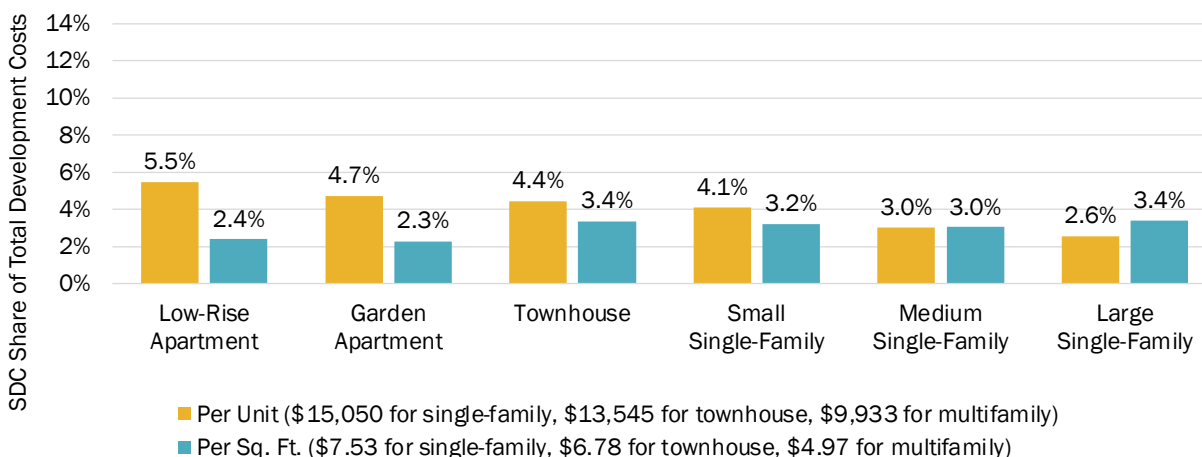
In contrast, applying SDCs per square foot of building area can remove the relationship between density and the share of costs that SDCs make up. (More on the scaling structure is discussed in Section 1.5.3.) Exhibit 36 shows that if SDCs were applied linearly per square foot,¹⁶¹ it would produce a lower variation in SDC share of costs. Across the housing types, SDCs as a share of development costs could range between 2.3 percent and 3.4 percent with a linear per-square-foot SDC rate.

The per-square-foot SDC rate in Exhibit 36 is selected for illustrative purposes and is calculated by dividing the \$15,050 per unit fee by 2,000 sq. ft. unit size of the Medium Single-Family housing type. The rate for Townhouse is 90 percent of the rate for single-family. The rate for Low-Rise Apartment and Garden Apartment is 66 percent of the rate for single-family.

When SDCs are scaled to unit size, the SDC share of development costs is more consistent across housing types. Compared to SDCs that are applied per unit, scaled SDCs result in lower SDC share of development costs for lower-cost housing types with smaller units. This shows that the variation in SDC share of total development costs can depend on not only the housing type but also the SDC structure.

Exhibit 36. Comparison of SDC Structures and SDC Share of Development Costs in a Moderate-Cost Area, by Housing Type

Source: ECONorthwest



¹⁶¹ It is unlikely that all SDCs would be appropriate to scale in this way, but it is presented here to illustrate the general point about the impact of scaling by unit size compared to fixed per-unit SDC rates.

Variation by Market Context

This section explores how SDC share of development costs can vary between market areas, which have different SDC amounts and different development costs.

To illustrate the variation in SDC share of development costs across the state, ECONorthwest estimated typical development costs in seven parts of the state and compared them to a typical SDC amount in each region. The seven market context areas generalized market and cost conditions based on geography, market factors, and development cost factors. They are broad categories that reflect typical housing prices and construction costs across the cities that fall within each geographic region. The values used for each geographic market are not intended to represent a specific city, and average housing prices and costs vary by city. Rather, the values are representations of likely values observed across many parts of the geographic market. The market context areas are:

1. **Willamette Valley:** Larger cities along Interstate 5, with some similar housing options within a local housing market. Does not include cities in the Portland Metro area.
2. **Small Cities:** Smaller cities along Interstate 5 or remotely located in eastern Oregon. Relatively stagnant growth, lower demand, and lower land costs are observed in comparison to other market context areas.
3. **Coast:** Coastal cities with many vacation rentals and second homes.
4. **Metro Low:** Suburban cities and neighborhoods in the Portland Metro area with moderate demand for new housing and limited production of new housing.
5. **Metro Mid:** Suburban cities and neighborhoods in the Portland Metro area with relatively strong demand for new housing and, sometimes, large tracts of planned developments.
6. **Metro High:** More exclusive neighborhoods in the Portland Metro area with higher prices and relatively few options for new housing.
7. **Cascades:** Cities east of the Willamette Valley that experienced a strong level of housing demand and production in recent years.

For this section of the report, the findings from the analysis of the seven market context areas are summarized into three market types that typify the lower, middle, and upper points of the analyzed markets. A full analysis for all market areas is available in Appendix F. The three market types presented in this section are:

- **Low-Cost Market** that typifies small cities in eastern Oregon with relatively stagnant growth, lower housing demand, and lower land costs in comparison to other markets.
- **Moderate-Cost Market** that typifies large cities along Interstate 5 and south of the Portland Metro area.
- **High-Cost Market** that typifies a subset of suburban cities in the Portland Metro area with strong demand for new housing.

Exhibit 37 shows the typical SDC amounts estimated for each market and for different housing categories.¹⁶² The townhouse SDCs are assumed to be 90 percent of the single-family SDCs, consistent with analysis above. The multifamily SDCs are assumed to be 66 percent of the single-family SDCs, consistent with analysis above.

Exhibit 37. Selected SDC Rates for Analyzed Markets

Source: ECONorthwest

	Low-Cost Market	Moderate-Cost Market	High-Cost Market
Single-Family SDC	\$8,600	\$15,050	\$48,800
Townhouse SDC (90%)	\$7,740	\$13,545	\$43,920
Multifamily SDC (66%)	\$5,676	\$9,933	\$32,208

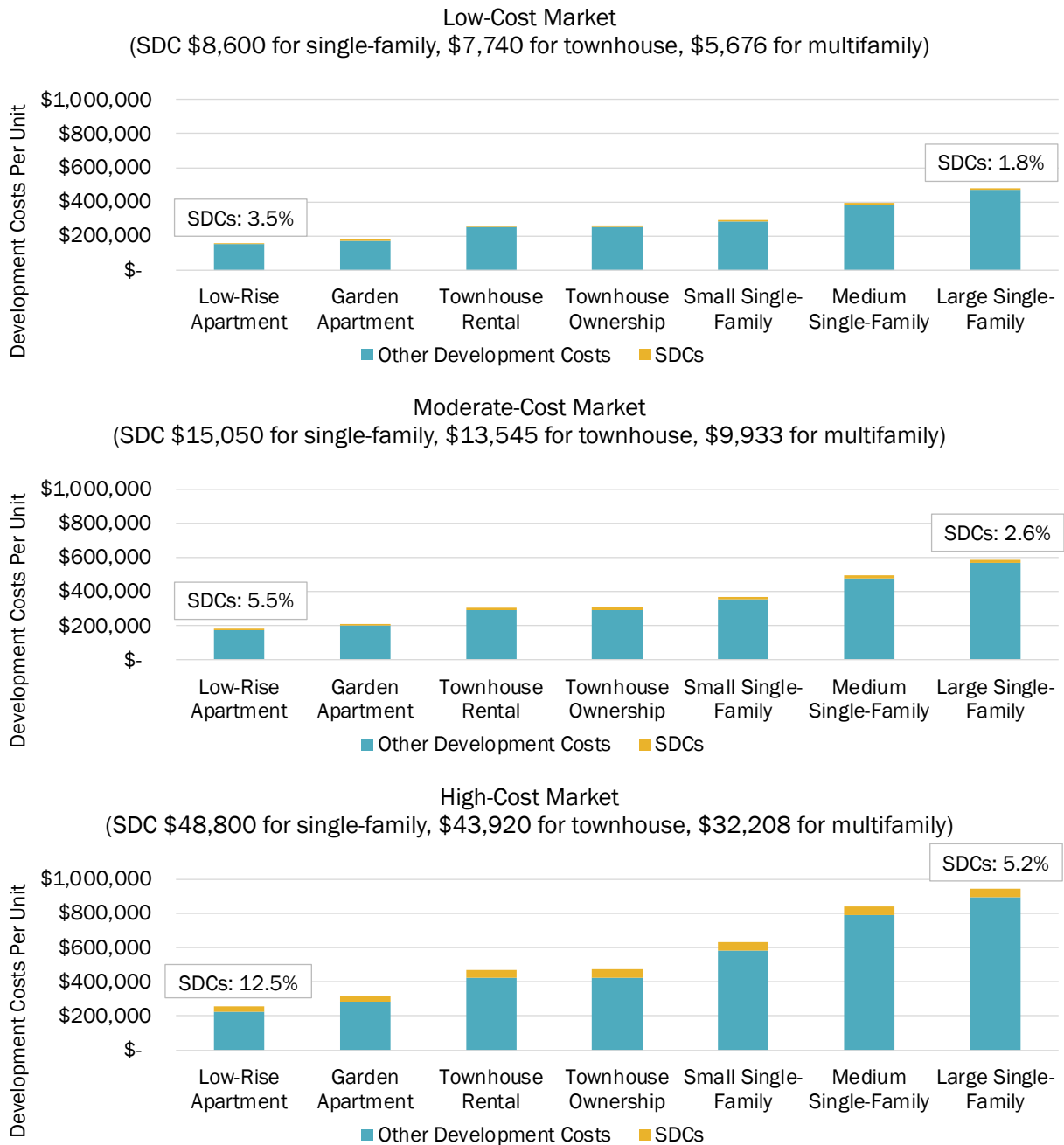
Exhibit 38 illustrates the findings from analysis. Given the estimated SDCs and other development costs, the analysis shows **the variation in SDC share of total development costs can also depend on the market.**

- SDCs could make up between 1.8 percent of single-family development costs to 3.5 percent of multifamily development costs in Low-Cost Market.
- SDCs could make up between 2.6 percent of single-family development costs to 5.5 percent of multifamily development costs in Moderate-Cost Market.
- SDCs could make up between 5.2 percent of single-family development costs to 12.5 percent of multifamily development costs in High-Cost Market.

¹⁶² The typical SDC amounts in Low-Cost and High-Cost Markets are rounded numbers of the average of reported SDC amounts in the 2022 survey of SDCs by FCS GROUP for cities that typify the market contexts described. The statewide average is used as the typical SDC amount for the Moderate-Cost Market, consistent with all analysis and charts in this section.

Exhibit 38. SDC Share of Development Costs Across Housing Types and Markets

Source: ECONorthwest



4.3.3 SDCs as a Share of Affordable Housing Development Costs

Affordable Housing Costs in Oregon

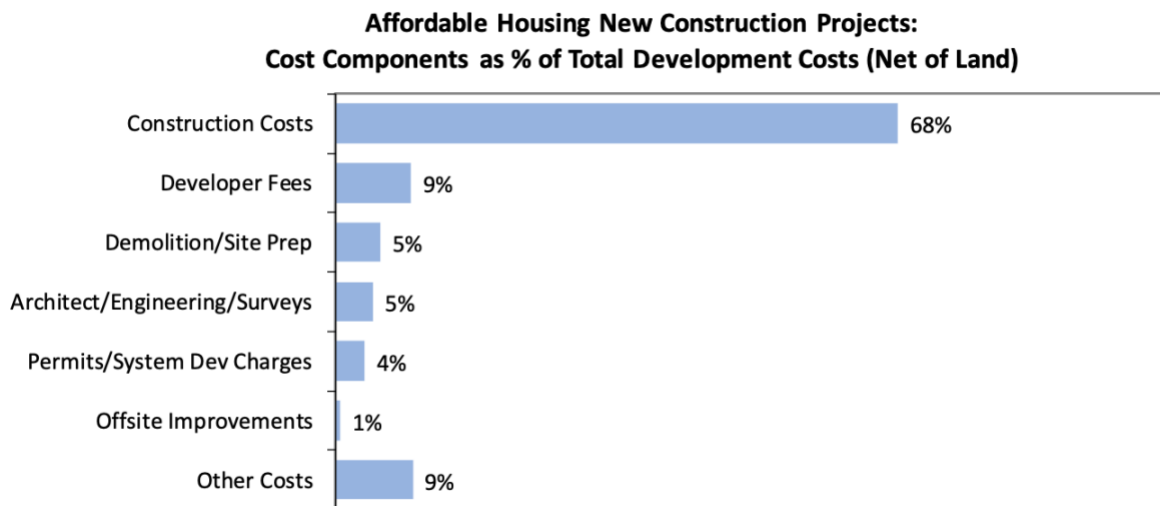
ECONorthwest reviewed the Affordable Housing Cost Study prepared for OHCS in 2019 to understand the relative cost of SDCs in comparison to other factors in affordable housing development. The report analyzed project cost data from over 200 regulated affordable multifamily housing projects built from 2001-2017, spread throughout urban and rural areas of Oregon with a range of size, unit mix, and total project cost. The study used a regression model

to test the relationship between different variables in affordable housing development and total project costs over this large sample.

In reviewing the breakdown of different cost factors associated with new affordable multifamily development, the report’s data combines permit fees with SDCs as a single variable in many cases. This does not allow for differentiation between other types of charges (like planning and building permit fees) but does provide context for their relative importance in construction. Exhibit 39 shows that overall, the permits and SDCs accounted for about 4 percent of development costs (excluding land) on average. The report also notes that as of 2019, SDCs average more than \$8,000 per affordable housing unit on average across the state.¹⁶³

Exhibit 39. Breakdown of Affordable Housing Development Costs in Oregon (Excluding Land)

Source: Blue Sky Consulting Group, OHCS Affordable Housing Cost Study



Average calculated by summing (real) cost measures across all affordable projects and dividing by total project costs excluding land.

Although permit fees and SDCs were estimated to account for a relatively low share of total costs overall, the study also showed that these costs grew to a greater extent between 2000 and 2017 than any of the other components. Exhibit 40 shows that affordable housing costs associated with permits and SDCs increased by an average 8.9 percent per year, more than twice as much as any other cost category.

¹⁶³ Blue Sky Consulting Group, “Affordable Housing Cost Study: Analysis of the Factors That Influence the Cost of Building Affordable Housing in Oregon” (Oregon Housing and Community Services, June 27, 2019).

Exhibit 40. Growth in Cost Components for Affordable Housing Over Time

Source: Blue Sky Consulting Group, OHCS Affordable Housing Cost Study

	Avg Real Cost per Unit*		Change (\$)	Change (%)	Annual Pct Change
	2000-'03	2014-'17			
Construction Costs	116,347	167,277	50,930	44%	2.6%
Developer Fees	14,413	23,927	9,514	66%	3.7%
Demolition/ Site Prep	9,871	13,876	4,005	41%	2.5%
Architect/ Engineering/ Surveys	8,769	10,317	1,548	18%	1.2%
Permits/ System Dev Charges	3,659	12,020	8,361	228%	8.9%
Other Costs	16,902	20,718	3,816	23%	1.5%
TOTAL COSTS NET OF LAND	169,962	248,137	78,175	46%	2.7%

* Costs represent 4-year moving average and are converted to real (2019) dollars using CPI.

The report evaluates a range of possible cost factors influencing the cost of affordable housing development. A regression analysis suggested that the key factors that drive development costs for affordable multifamily housing include:¹⁶⁴

- **Project characteristics** including type and size, as larger buildings and units tend to drive up costs.
- **Local factors** like community opposition and low availability of labor, which can result in expenses for additional public meetings and competitive wages.
- **Economies of scale**, which can reduce the cost per unit, but are effectively limited for certain projects based on the cap on the amount of Low Income Housing Tax Credits (LIHTC) available.
- **Building quality and durability** can increase costs for high quality developments but can lower ongoing maintenance and repair costs.
- **Land costs**, which varied across the state and by local census tract characteristics like income level and population density.

This list does not call out local fees explicitly, though they may be encompassed within “local factors.” While this might suggest that SDCs are not a major driver of affordable housing development costs in Oregon compared to all the other factors evaluated, the report does call out the pace of increases as a key finding.

Case Study: SDCs Paid by Affordable Housing Development in Hillsboro

ECONorthwest summarized the amount that affordable housing developments in the City of Hillsboro have paid in SDCs over the past 10 years in a memorandum to the City of Hillsboro as part of their consideration of SDC exemptions.¹⁶⁵ The City does not offer SDC exemptions today,

¹⁶⁴ Blue Sky Consulting Group, “Affordable Housing Cost Study: Analysis of the Factors That Influence the Cost of Building Affordable Housing in Oregon” (Oregon Housing and Community Services, June 27, 2019).

¹⁶⁵ ECONorthwest, “Progress Report of Hillsboro Affordable Housing Tools and Evaluation of Additional Tools,” prepared for the City of Hillsboro, April 12, 2022.

nor do Washington County or Clean Water Services (CWS), which also charge SDCs for projects in Hillsboro.

Exhibit 41: SDCs for Recent Affordable Housing Developments in Hillsboro

Source: ECONorthwest summary based on data provided by the City of Hillsboro; OHCS^{166,167}

	Willow Creek Crossing	Orchards at Orenco II	Orchards at Orenco III	Alma Gardens	Nueva Esperanza	Total
Year Funded	2018	2015	2017	2013	2022	
Units	120	58	52	45	150	425
Parks SDC (City of Hillsboro)	\$644,410	\$258,158	\$267,748	\$175,950	\$958,800	\$2,305,066
Water SDCs (City of Hillsboro)	\$0	\$54,430	\$55,350	\$45,380	\$88,280	\$243,440
Sewer & Stormwater SDCs (CWS)	\$663,084	\$289,282	\$283,104	\$212,150	\$912,750	\$2,360,370
TDT (Washington County)	\$663,960	\$304,906	\$281,580	\$94,365	\$944,400	\$2,289,211
SDC total	\$1,971,454	\$906,776	\$887,782	\$527,845	\$2,904,230	\$7,198,087
Total SDCs per Unit	\$16,429	\$15,634	\$17,073	\$11,730	\$19,362	\$16,937
Total Development Costs	\$31,523,563	\$13,547,334	\$14,860,640	\$9,273,520	\$53,954,156	\$123,159,213
SDCs as a % of Total Development Costs	6.3%	6.7%	6.0%	5.7%	5.4%	5.8%

In total, over \$7 million of affordable housing funding has gone towards SDCs over the past 10 years for projects within the City of Hillsboro alone. This represents **nearly 6 percent of the total development costs** on average.

Note that these example projects are located outside the South Hillsboro area, which has additional area-specific SDCs. Apartment projects located in South Hillsboro, including affordable housing development, are subject to over \$17,800 in additional SDCs (as of 2022).¹⁶⁸ Using Nueva Esperanza as an example, since it is currently under construction, the total SDC cost if it had been located in South Hillsboro would have been over \$5.5 million, or over \$37,000

¹⁶⁶ Oregon Housing and Community Services, <https://www.oregon.gov/ohcs/development/Documents/applicants-recipients/4-percent-lihtc-affordable-housing.pdf>

¹⁶⁷ Oregon Housing and Community Services, <https://www.oregon.gov/ohcs/development/Documents/applicants-recipients/LIHTC-Statewide-List.pdf>

¹⁶⁸ City of Hillsboro, “Citywide Fees and Charges,” August 2022, page 44-45. SDC rate assumes property is not part of the Local Improvement District (LID) for the area, which applies some infrastructure costs in the form of an LID assessment rather than a supplemental SDC.

per unit—close to 10 percent of the total costs (even after accounting for the increase in total costs due to higher SDCs).

4.3.4 SDCs Compared to Other Development-Related Costs

Overview

As noted previously, SDCs are just one of many costs of housing development. HB 3040 directed the study to include a comparison of SDCs to “other housing cost drivers, including, but not limited to, the costs of land, labor and materials, utility rates, the costs of infrastructure and costs associated with regulatory compliance.” In comparing other cost drivers to SDCs, it is important to consider not only the magnitude of the costs but also the level of public sector influence over those costs, which varies among the cost drivers listed. It is also important to note that the total cost impact of a given input to housing development depends both on the unit costs of that input and the amount needed (e.g., the cost of a given amount of land and the amount of land required per unit). While it is beyond the scope of this report to conduct a detailed analysis of how each of these cost factors has changed over time and the extent to which the public sector can increase or decrease the costs or their impact on housing, this section provides a high-level summary of how market forces and public-sector policies and regulations can affect these costs and the available data on their relative contribution to the cost of housing development or to housing costs more generally.

Land

Land Cost Factors

As illustrated in Exhibit 30 (page 67), the cost of land in the context of housing development is affected by a combination of the supply of buildable land that is available and suitable for residential development, and demand for land based on overall growth drivers. As discussed further in Section 4.2.3, expected costs associated with developing the land (including providing infrastructure) and projected revenues from development also affect the market price for land. Local governments have an influence on land supply (e.g., through setting urban growth boundaries), land use regulations, and infrastructure investments and requirements, all of which can affect land cost to some extent. Local regulations also impact how much land is required for a given housing development through minimum lot size, maximum density, and other development standards.

Land Costs as a Share of Development Costs

Land costs are included in the estimates described in Section 4.3.2. ECONorthwest’s analysis suggests that land costs likely account for roughly 7 to 21 percent of total development costs for typical market-rate housing development in Oregon, depending on the housing type.

The 2019 study of affordable housing costs in Oregon referenced earlier found that “land costs as a percent of total project cost ranged from as little as 2 percent to as much as 15 percent. On

average, land costs accounted for slightly less than 7 percent of total project costs.”¹⁶⁹ This data was drawn from a sample of affordable housing new construction projects with arms-length land transactions. It cited an average of \$17,000 in land costs per unit and a median of \$14,000 per unit (in 2019 dollars).¹⁷⁰ The study noted that land costs were lower in rural areas than in non-rural areas.¹⁷¹

This is generally somewhat higher than SDC’s share of development costs. However, this varies by region and by community. In a recent opinion piece, Habitat for Humanity of Metro Portland noted that “when Habitat for Humanity develops housing in [the Portland] region, permitting fees plus ‘System Development Charges’ paid to local jurisdictions generally exceed the market-rate cost for land.”¹⁷²

Construction Labor and Materials

Construction Labor and Materials Cost Factors

The cost of construction labor is affected by labor supply factors (including availability of other employment opportunities, availability of training programs to build relevant skills, and licensing requirements), labor demand factors (including amount of construction taking place at any one time), regional cost of living, and government regulations including minimum wage standards and prevailing wage requirements. Government regulations can also affect the amount of construction labor required through design standards, building codes, and worker health/safety regulations.

The cost of construction materials (e.g., lumber, concrete, steel, but also plumbing fixtures and appliances) is largely set through commodities markets based on broader supply and demand trends, though limited availability of certain materials in smaller markets can increase materials costs in specific areas. Local regulations have little impact on the unit cost of materials, but they can affect the amount and type of materials required through design standards and building codes.

Construction Labor and Materials as a Share of Development Costs

The costs of labor and materials (“hard costs”) are included in the estimates described in Section 4.3.2. ECONorthwest’s analysis suggests that hard costs likely account for two-thirds or more (66 to 76 percent) of total development costs for typical market-rate housing development in Oregon, depending on the housing type.

¹⁶⁹ Blue Sky Consulting Group, “Affordable Housing Cost Study: Analysis of the Factors That Influence the Cost of Building Affordable Housing in Oregon” (Oregon Housing and Community Services, June 27, 2019), page 37.

¹⁷⁰ *Ibid.*, page 34.

¹⁷¹ *Ibid.*, page 38.

¹⁷² Sam Diaz, Kim McCarty and Steve Messinetti, “Opinion: Undoing urban growth boundary isn’t the answer to our housing crisis,” *The Oregonian*, December 4, 2022. <https://www.oregonlive.com/opinion/2022/12/opinion-undoing-urban-growth-boundary-isnt-the-answer-to-our-housing-crisis.html>.

In the 2019 study of affordable housing costs found that construction costs (including labor and materials for building construction) accounted for 68 percent of total development costs (excluding land), as shown in Exhibit 39 on page 83.

This is much higher than the cost of SDCs as a share of housing development costs, but the degree to which the public sector can impact these costs is less (see Regulatory Costs beginning on page 89).

Infrastructure Costs

Infrastructure Cost Factors

Infrastructure costs in this context refers to costs for improvements made directly by the developer that are not eligible for SDC credits. This could include local streets and water/wastewater lines within a subdivision, sidewalk improvements for an infill development, or off-site improvements required as a condition of development (e.g., intersection improvements, crosswalks, etc.). The factors driving the unit costs of infrastructure are discussed in Section 2.1.2 beginning on page 22. Total direct infrastructure costs borne by a given development are also driven by the availability and adequacy of infrastructure nearby, local government standards related to infrastructure design and construction (e.g., required street cross-sections and engineering specifications for streets and utilities), and local government policies and regulations that determine what improvements are required for a development (e.g., traffic impact assessments, frontage improvement requirements).

Infrastructure as a Share of Development Costs

There is no comprehensive data on these costs, and it is difficult to estimate “typical” costs for residential development across the state, given that direct infrastructure costs are highly variable between different developments depending on their context. Some infill projects may have no infrastructure costs, while major greenfield developments or large-scale redevelopment projects may require extensive new infrastructure construction and/or upgrades to existing facilities. The extent to which infrastructure costs can be defrayed through SDC credits also varies, as discussed further in Section 5.3.

As one way of estimating direct infrastructure costs for a simple single-family subdivision that does not require major street extensions or off-site improvements, ECONorthwest analyzed typical local street improvements costs using unit cost estimates used by various cities on recent infrastructure funding and analysis projects.¹⁷³ The estimated costs ranged from about \$23,800 to \$41,100 per unit. (The higher estimate is from a smaller city and includes extending utility lines within the street.) In comparison, the average SDC per unit for single-family development ranges from \$8,600 in a low-cost market to \$15,050 in a moderate-cost market to \$48,800 in a high-cost market, as shown in Exhibit 37 on page 79.

¹⁷³ The analysis assumes 50-foot-wide lots on a double-loaded street meeting the narrowest street design for which costs were available. Unit costs were derived from analysis related to Beaverton’s South Cooper Mountain, South Hillsboro, and an analysis of infrastructure needs associated with vacant land in Newport.

The 2019 Affordable Housing Cost Study did not isolate the cost of infrastructure improvements specifically, but it did estimate costs for “Offsite improvements” and for “Demolition/Site Prep.” Given that the projects included in the analysis are all multifamily, for which utility extensions and circulation from a main road are generally provided through the site on private land rather than in public right-of-way, a portion of the cost of extending infrastructure through the site may be included in the “Demolition/Site Prep” category. “Offsite Improvements” is likely to be mostly attributable to infrastructure improvements, though this category is not further defined in the report. As shown in Exhibit 39 on page 83, offsite improvements were estimated at roughly 1 percent of total development costs (excluding land), on average, for affordable housing new construction statewide.¹⁷⁴

ECONorthwest also reviewed several example pro formas provided by OHCS from recent affordable housing projects. These pro formas showed off-site costs accounting for roughly 1 to 2 percent of total development costs (including land). The pro formas grouped on-site utility extensions with other on-site and site preparation costs, but one included a note indicating a specific amount for on-site utilities, which, for that specific project, accounted for roughly an additional \$11,000 per unit, and 4 percent of total development costs. (For that example project, SDCs were just over \$3,000 per unit and roughly 1 percent of total development costs.)

Taken together, the limited available data suggest wide variation in direct infrastructure costs across different housing projects, which can be more or less than the costs of SDCs.

Regulatory Costs

Regulatory Cost Factors

The cost of regulatory compliance is difficult to measure for several reasons. First, there are many ways to define the costs of regulations, some broader than others. Second, even if there is a consensus on the categories of regulatory costs to track, measuring them can be challenging. Potential categories within regulatory costs include:

- **Permitting and compliance costs:** There are costs directly attributable to demonstrating compliance with government regulations (e.g., permit fees, inspections, environmental testing or evaluations, the cost to prepare permit applications and special studies, the cost to prepare for and attend public meetings if required). Some of these are easy to measure (e.g., permit fees), while others may be a hidden component of other costs (e.g., preparing permit applications may be included in an architect’s fee).
- **Delay-imposed costs:** Regulations can increase the time it takes to complete a development, which can impact financing/interest costs and other development costs (e.g., costs associated with having adjacent streets closed or modified, the cost of having contractors or equipment on site). Delay due to permitting processes can also mean delayed cash flows or unproductive capital, although the time value of money can differ

¹⁷⁴ Blue Sky Consulting Group, “Affordable Housing Cost Study: Analysis of the Factors That Influence the Cost of Building Affordable Housing in Oregon” (Oregon Housing and Community Services, June 27, 2019).

from person to person, developer to developer, and city to city. These costs are rarely itemized specifically, though they can be estimated.

- **Standards-related costs:** Regulations can also impact the cost of other inputs to development, including land, construction labor and materials, infrastructure, and engineering/design fees by setting minimum standards that a development must meet, as noted in the prior subsections. The extent to which regulations *do* impact the cost of other inputs depends on how different the requirements are from what developers would choose to do (or what lenders, investors, or end users would demand that they do) absent the regulations, which varies depending on the context and can be difficult to ascertain.

Like SDCs, in a full evaluation, the costs of these requirements should be weighed against the benefits to public safety, health, environmental quality, and community well-being, but such an evaluation of trade-offs is beyond the scope of this study.

Regulatory Costs as a Share of Development Costs

National Estimates of Regulatory Impacts on Multifamily Development Costs

A recent and oft-cited study of regulatory costs by NAHB and NMHC estimated that as much as 40.6 percent of multifamily development costs are due to the cost of regulatory compliance, based on a survey of 49 developers across the country. The survey asked respondents about how much various factors contribute to total development costs for a typical project.¹⁷⁵ A breakdown of the specific cost components included in this total is shown in Exhibit 42.

¹⁷⁵ Paul Emrath and Caitlin Sugrue Walter. Regulation: 40.6 Percent of the Cost of Multifamily Development. NAHB and NMHC. June 8, 2022. <https://www.nmhc.org/globalassets/research--insight/research-reports/cost-of-regulations/2022-nahb-nmhc-cost-of-regulations-report.pdf>

Exhibit 42: Average Regulatory Costs as a Share of Total Multifamily Development Costs Nationally

Source: NAHB and NMHC¹⁷⁶

	Share With the Regulatory Cost	Regulation as a Percent of Total Development Cost	
		Average When Present*	Average Across All Properties
Cost of applying for zoning approval	93.9%	3.4%	3.2%
Costs when site work begins (fees, required studies, etc.)	98.0%	8.7%	8.5%
Dev. requirements (layout, mats, etc.) beyond the ordinary	91.8%	5.8%	5.4%
Cost of land dedicated to the government or left unbuilt	51.0%	4.7%	2.4%
Fees charged when building construction is authorized	95.9%	4.6%	4.4%
Costs of affordability mandates (e.g., inclusionary zoning)	38.8%	6.9%	2.7%
Changes to building codes over the past 10 years	100.0%	11.1%	11.1%
Complying with OSHA/other labor regulations	93.9%	2.7%	2.6%
Pure cost of delay (if regulation imposed no other cost)	95.9%	0.5%	0.5%
TOTAL COST OF REGULATION	100.0%	40.6%	40.6%

* The base is different for every percentage in this column, so the line items are not additive.

- Permitting and compliance costs** such as the cost of applying for zoning approval (including costs of traffic impact studies or other required studies), fees and required studies when site work begins (which can include hook-up or impact fees in some cases), and fees charged when building construction is authorized (though this can also include impact fees) total an estimated 16.1 percent of total development costs on average.¹⁷⁷ (“Soft costs,” which include these costs as well as design, financing, legal, and insurance costs, typically account for 20 to 35 percent of total development costs.)
- Delay** is estimated to account for 0.5 percent of total development costs based on typical construction timelines and loan terms combined with survey results regarding the typical timing associated with various stages of development.¹⁷⁸
- Standards-related costs**, including development requirements beyond the ordinary, the cost of land dedications, changes to building codes, and complying with labor regulations were estimated to total 21.5 percent of development costs, with building code changes representing the largest share of these costs.¹⁷⁹

The study also estimated cost impacts associated with inclusionary zoning/affordable housing requirements, but it is unclear whether this reflects fee-in-lieu costs or other costs associated with these programs.

¹⁷⁶ Paul Emrath and Caitlin Sugrue Walter. Regulation: 40.6 Percent of the Cost of Multifamily Development. NAHB and NMHC. June 8, 2022. <https://www.nmhc.org/globalassets/research--insight/research-reports/cost-of-regulations/2022-nahb-nmhc-cost-of-regulations-report.pdf>.

¹⁷⁷ *Ibid.*

¹⁷⁸ *Ibid.*

¹⁷⁹ *Ibid.*

Prevailing Wage

Governments can require its contractors and grant awardees to satisfy certain labor standards and wage requirements. U.S. Department of Labor determines federal prevailing wage rates and Oregon Bureau of Labor and Industries determines Oregon's prevailing wage rates.

Estimates of the cost impact of prevailing wage requirements have largely focused on affordable housing development. Some affordable housing developments are subject to prevailing wage requirements while others are not, as described in the excerpt below. According to a 2015 study by the Meyer Memorial Trust:

Work Group experts generally agreed that meeting BOLI requirements added about 10 percent to the hard costs of a project. However, in the case of a mixed-use project including ground floor commercial uses, BOLI typically holds the entire project to the significantly higher commercial BOLI wages (in effect, treating a three-story stick-built apartment building the same as a high-rise office building made of steel and concrete). Commercial BOLI rates can add as much as 20 percent to construction costs over a non-prevailing wage project.¹⁸⁰

An academic study from 2005 found that prevailing wage requirements increase the costs of constructing affordable housing by 9 to 37 percent.¹⁸¹ Even if these cost increases are only on the construction "hard costs," they may exceed the cost impacts associated with SDCs in cases where prevailing wage requirements apply.

Study of Cost Savings From Regulatory Changes

In an analysis for the City of Seattle, ECONorthwest developed a model that showed sensitivity of housing affordability to various regulatory changes, including reducing permitting time, removing a retail frontage requirement. The study estimated that reducing permitting time from 24 to 12 months for multifamily development and from 18 to 9 months for townhouse development could reduce the rents and sales prices required to make development feasible by roughly 4 to 6 percent. It also showed potential for roughly a 1 percent reduction in rents and sales prices from removing a ground-floor retail requirement. The study also considered changes to impact fees and suggested that substantial reductions to permitting time could have a greater impact than a \$4,700 to \$6,000 difference in impact fees.¹⁸²

Comparison to SDCs

While the available data is limited and the cost impacts are harder to accurately measure, these studies suggest that other permitting and compliance costs (e.g., fees, inspections, cost to prepare applications, etc.) and certain development or labor regulations (e.g., prevailing wage requirements) can impact total development costs by a similar order of magnitude as SDC costs,

¹⁸⁰ Meyer Memorial Trust, *The Cost of Affordable Housing Development in Oregon*, Executive Summary, October 2015, page 20.

¹⁸¹ Sarah Dunn, John M. Quigley, and Larry A. Rosenthal. (2005) "The Effects of Prevailing Wage Requirements on the Cost of Low-Income Housing." *ILR Review*, 59(1), 141-157.

¹⁸² *Seattle Affordable Middle-Income Housing Advisory Council: Policy Recommendations to Mayor Jenny A. Durkan*, January 2020. Analysis by ECONorthwest.

and that permitting speed can affect total costs, though the magnitude may be less or more than the impact of SDCs.

Construction Excise Tax

Jurisdictions in Oregon are allowed to assess a Construction Excise Tax (CET) on new residential and non-residential developments as a means of funding affordable housing strategies. Though a variety of CETs exist, a CET can be imposed at no greater than 1 percent of a building's permit value for residential development. Permit value is typically an approximation of construction hard costs and much less than the total development costs. Therefore, CETs make up less than 1 percent of total development costs for residential developments in jurisdictions that elect to adopt a CET, which will generally be less than the impact of SDCs.

Utility Rates

Unlike the other cost factors identified in the legislative directive for this study, utility rates do not affect the cost of housing development. Instead, they affect households' on-going monthly costs. Thus, while both SDCs and utility rates are related to funding for infrastructure and to broader affordability concerns, their impacts are observed in different ways. Utility costs are generally paid by residents directly (except in some cases with apartments that have shared meters, where water costs are included in rent). SDCs are generally not paid by residents directly and have more nuanced impacts on housing production and affordability including how much new housing gets built, where it gets built, and what sizes/types of housing the market can deliver.

Typical utility costs and the share that is attributable to capital improvement costs are discussed in Section 2.1.4, and affordability impacts of utility cost increases are discussed in Section 2.2.4.

A 2021 survey of local jurisdictions by LOC offers a summary of the size of some utility rates and how they vary across the state. Survey responses from 105 jurisdictions show that monthly water and wastewater utility bills¹⁸³ can add up to between \$65.89 and \$129.39, with the average at \$99.32. Utility rates vary less by region than SDCs do, and they do not follow the same geographic patterns (see Section 3.1.1). The estimated utility bills in the survey data are higher for coastal regions, for example, than they are for the Portland metropolitan area. In contrast, the highest SDCs are generally observed in the Portland metropolitan area.¹⁸⁴

Over 20 years, water and wastewater utility bills can add up to about \$17,000 to \$33,000 in today's dollars, depending on the region.¹⁸⁵ These values are somewhat higher than the

¹⁸³ For a hypothetical customer who used 5,000 gallons (6.684 CCFs) of water and has a ¾" meter size.

¹⁸⁴ Aljets Consulting. *2021 Water Rates Survey Report*. December 2021. League of Oregon Cities.

¹⁸⁵ ECONorthwest calculated the present value using an assumed 5 percent annual inflation rate for utility expenses (based on information from Section 2.1.4) and a 4 percent discount rate to account for time value of money. For reference, the yield on U.S. 10 Year Treasury was about 3.8 percent and the yield on U.S. 20 Year Treasury was about 4.1 percent in the fall of 2022.

estimated median SDC amount (just over \$15,000), though the 20-year value of water and wastewater bills is not a perfect comparison to SDCs, and utility rates are largely covering the cost of operations, maintenance, and system modernization, as discussed in Section 2.1.4, which SDCs generally cannot pay for.

4.4 Impact of SDCs on Financial Feasibility of Market-Rate Residential Development

4.4.1 Testing Impacts Across the State

Approach

To understand the financial impact SDCs can have on development feasibility and the relationship between SDCs and development outcomes, ECONorthwest constructed pro forma models that are sensitive to change in input costs. A more detailed methodology is included in Appendix F.

The key measure of development financial feasibility used to demonstrate the marginal impact of SDCs is **expected returns** of for-profit developers of market-rate housing. (Impacts of SDCs on affordable housing developers are addressed in Section 5.2.2.) If a change in SDCs results in a decrease in the expected returns, developments are less likely to occur.

Although there are many methods to calculate and measure investor returns, the metric selected for this study is internal rate of return (IRR). IRR is a commonly used financial metric in the real estate industry to estimate the profitability of real estate investments. Although expected IRR can vary based on the type of development, location, market contexts, and investor-specific considerations, it is typically between 15 percent and 25 percent. Therefore, a one percentage point change in IRR may be within a margin of error and not impact development decisions, but a change of five percentage points is likely to have an impact.

As noted above, the impact of SDCs on housing can vary across geographic markets and housing types in Oregon. To isolate the potential impact of SDCs on housing development feasibility, ECONorthwest used a pro forma analysis that reflects market and cost differences across the state, using seven market context areas discussed in Section 4.3.2, beginning on page 80. The analysis measured the marginal impact of higher vs. lower SDC amounts on financial feasibility, based on the sensitivity of developers' expected returns to changes in SDCs. (More detail on the analysis is discussed in Appendix F.)

Findings

Although specific site or economic conditions will influence development outcomes for any given development, the analysis suggests some generalizable takeaways.

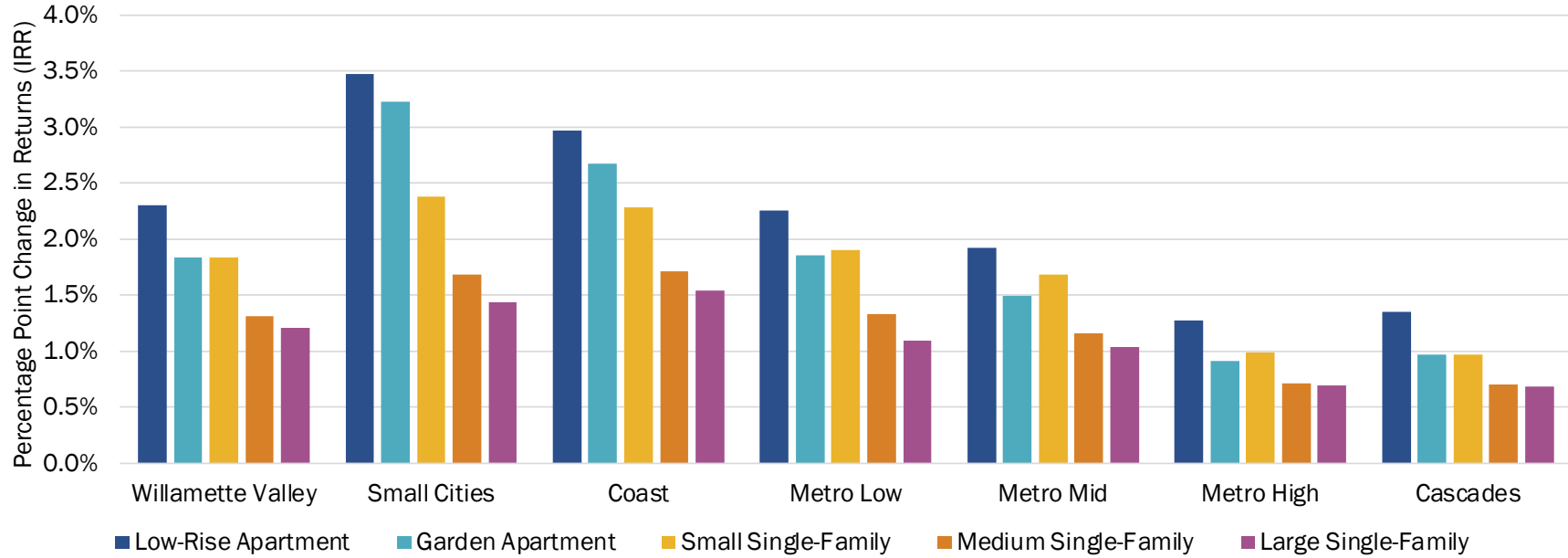
- The marginal impact of SDCs on development feasibility is greater for lower-cost and higher-density housing developments. Because SDCs often make up a greater portion of total development costs in a housing development that is less costly to build on a per-unit basis, a fixed change in SDCs has a greater marginal impact on lower-cost (and higher-density) housing types. This relationship is generally true across markets. For example:

- A \$10,000 change in fee would have a greater marginal impact on the financial feasibility of Small Single-Family housing than on Large Single-Family housing (see Exhibit 43).
- A \$6,600 change in fee would have a greater marginal impact on the financial feasibility of Low-Rise Apartment housing than on Garden Apartment housing (see Exhibit 43).
- Similarly, the marginal impact of SDCs is greater in markets where it is less costly to build. Because a fixed SDC amount makes up a greater portion of total development costs in markets with lower land costs, a change in SDCs has a greater marginal impact on the types of housing markets can deliver in markets with lower costs for land and construction.
 - For example, a \$10,000 change in fee for a single-family unit would have a greater marginal impact on financial feasibility in a small city outside a metropolitan area than inside a metropolitan area where land and housing prices are relatively expensive (see Exhibit 44).

A key limitation of the results shown in Exhibit 43 and Exhibit 44 is the simplifying assumption that SDCs could vary by the same amount across all market context areas. While the assumption is useful for demonstrating the directional relationship between SDCs and development feasibility, it does not account for the fact that SDCs vary widely across markets. For simplicity, the analysis uses a constant amount of change in SDCs across all market areas.

Exhibit 43. Marginal Impact of Change in SDCs on Development Feasibility by Housing Type and Market Context Area

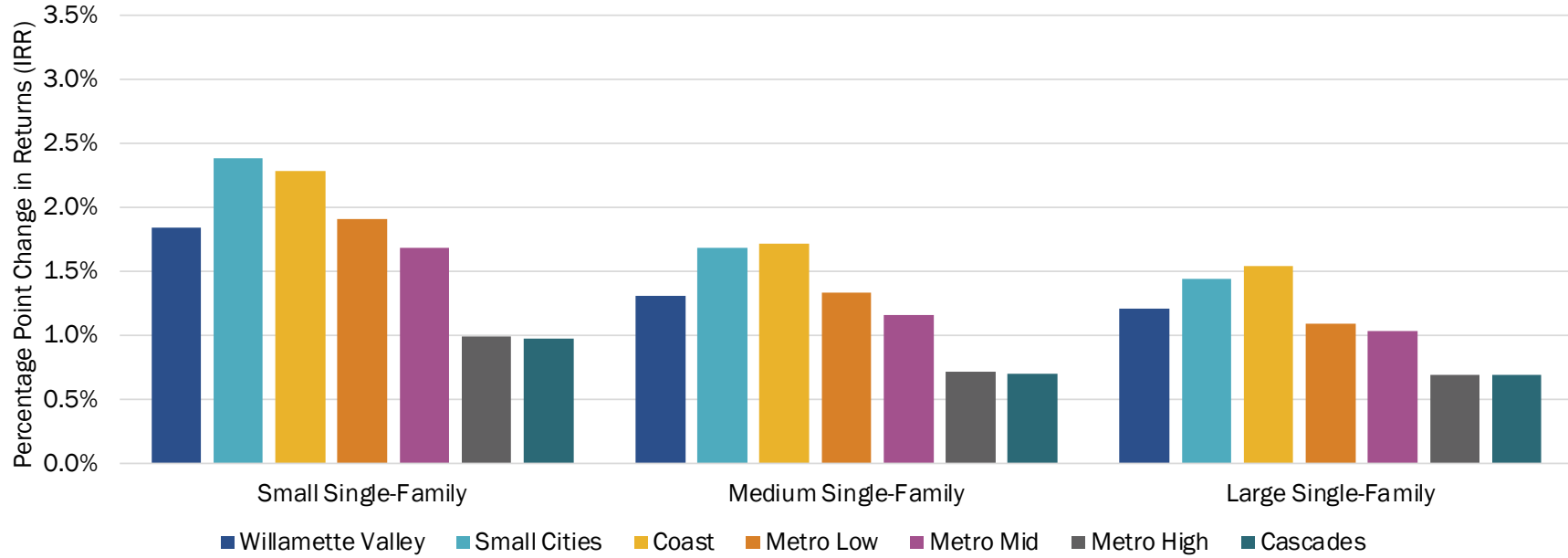
Source: ECONorthwest



Note: A \$10,000 change is modeled for single-family housing types. A \$6,600 change is modeled for apartment housing types. Section 1.4.1 explains multifamily SDCs are about 66 percent of single-family SDCs, on average.

Exhibit 44. Marginal Impact of \$10,000 Change in SDCs on Single-Family Development Feasibility by Unit Size and Market Context Area

Source: ECONorthwest



4.4.2 Findings From Developer Interviews

The patterns noted above are generally consistent with findings from developer interviews.

- In some cases, SDCs are enough to make a project infeasible, especially for very cost sensitive housing types. Entry-level homes are cost-sensitive, including middle housing. Attached product can sometimes cost more to build than a single-family home and often sells for less relative to a detached house. Multifamily can also be affected by high SDCs if they are disproportionate to other costs.
- When SDCs are low compared to other costs, they have little impact on development feasibility.

SDCs are not typically an important factor for high end housing types, such as custom homes, because they represent a small portion of the cost, and high-income/wealthy buyers tend not to be cost-sensitive.

4.5 Relationship Between SDCs and Home Prices

This section summarizes various sources of data and research regarding the relationship between SDCs and home prices, including peer reviewed literature, Oregon-specific case studies, and data on home prices compared to SDCs in communities across the state.

4.5.1 Evidence From Empirical Literature

Overview and Limitations

The effect of impact fees on various housing market outcomes has been analyzed empirically in numerous studies within the context of specific cities and states in the U.S. However, findings from the empirical research should be interpreted carefully for a few reasons:

- Although the empirical research utilized commonly used statistical models to understand the relationship between impact fees and cost incidence, they failed to establish a definitive causal relationship. Observed changes in prices or housing production in places with impact fees could be due to the impact fees increasing housing costs or other reasons, including reduced production of new entry-level homes, lower overall housing production, a higher level of amenities and services in places with higher SDCs, a greater willingness to impose high impact fees in places with strong housing markets, or other factors. Thus, the results of the studies mentioned are interpreted as correlations rather than definitively establishing causal relationships.
- None of the studies were conducted in Oregon, which has a unique growth management planning system that affects housing markets. While some places included in the research could resemble a city in Oregon, there is no generalizable takeaway from the empirical studies that would be applicable across Oregon.
- There are many variations in the outcome variables of the empirical research. While all studies on housing prices looked at the prices for newly constructed, single-family units, some also included the data for existing units or multifamily units. Other studies looked instead at land prices, which could be differentiated as either undeveloped (vacant) land or developed land. The applicability of each research's findings depends on the data that is used.

Summary of Studies, Approach, and Findings

Exhibit 45 is a summary of key information presented in academic research that studied the relationship between impact fees and the housing market. A more detailed summary is available in Appendix G. The 15 summarized studies provide a snapshot of the existing range of research that exists, but they are not a comprehensive list of impact fee studies. The key takeaways are:

- Most studies measured the relationship between impact fees and housing prices (for new homes only or for all homes in an area). These studies consistently found higher home prices in areas with impact fees. The differential in housing prices ranged from 25 percent to 300 percent of the value of the impact fee.
- A few studies analyzed the relationship between impact fees and land prices. While the economic theory discussed in Section 4.2.2 suggests that land prices should be lower in areas with impact fees, studies were mixed on this point.
- A few studies analyzed the relationship between impact fees and housing production. Most of these observed a negative relationship—higher impact fees were associated with less housing production—although one found the opposite.
- More recent studies that attempted to distinguish the effects of different types of impact fees found that not all impact fees have the same effect.
- There are no studies that measured the potential effect of removing impact fees, providing no direct evidence to suggest taking away existing impact fees could reduce housing prices.

Exhibit 45. Summary of Empirical Studies on Impact Fees

Source: ECONorthwest

Author(s) (Publication Year)	Observed Relationship to Housing Prices	Observed Relationship to Housing Production	Observed Relationship to Land Values
Delaney and Smith (1989)	(+)	N/A	N/A
Singell and Lillydahl (1990)	(+)	N/A	N/A
Skaburskis and Qadeer (1992)	N/A	N/A	(+)
Dresch and Sheffrin (1997)	(+)	N/A	N/A
Skidmore and Peddle (1998)	N/A	(-)	N/A
Baden and Coursey (1999)	(+)	N/A	N/A
Mayer and Somerville (2000)	N/A	(-)	N/A
Mathur, Waddell, and Blanco (2004)	(+)	N/A	N/A
Ihlanfeldt and Shaughnessy (2004)	(+)	N/A	(-)
Evans-Cowley, Forget, and Rutherford (2005)	N/A	N/A	(+)
Burge and Ihlanfeldt (2006)	N/A	(+)	N/A
Mathur (2013)	(+)	N/A	N/A
Burge (2014)	N/A	N/A	(-)
Bae, Kwon, Coutts, Park, and Feiock (2015)	N/A	N/A	(+)

Key: (+) = Positive correlation between impact fees and the variable in question; (-) = Negative correlation between impact fees and the variable in question. N/A = variable not addressed in study in question.

While none of the studies can clearly establish causality, some authors assert that the observed relationship between impact fees and housing prices primarily reflects the value of the infrastructure funded by the impact fees: that the higher prices of new housing reflect the desirability of the newly built infrastructure, rather than the cost of it. They posit that the added cost of impact fees can be counterbalanced by the positive effect they have on infrastructure services.^{186, 187} The added benefits are reflected in higher housing values through an economic concept called “capitalization.”^{188, 189} Thus, according to the view of capitalization theory, the higher housing prices of dwellings with SDCs reflect a properly functioning economic market in which the long-term benefits of impact fees are measured in today’s market prices.

Other studies focus more on costs being passed on to housing consumers, either directly or indirectly.

4.5.2 Oregon Case Studies and Data

To evaluate whether the relationship observed consistently in the literature—showing higher housing prices in areas with impact fees—holds in Oregon, ECONorthwest analyzed available statewide data (at a simplified level) and more detailed data from two case studies. The first case study compared trends in housing prices to trends in SDC fees in one community. The second case study compared housing prices in similar areas but with different SDC rates. These analyses are current and Oregon-specific, but they do not control for all variables that could affect housing prices and they cannot establish causation.

SDC Rates vs. Average Housing Values by Community

ECONorthwest compared single-family SDC rates from the 2022 SDC rate data collected by FCS GROUP to June 2022 single-family housing values from Zillow. The simplified approach did not include other variables that could relate to SDC rates and/or housing values, such as population, population growth rate, infrastructure quality, access to jobs or amenities, buildable land supply, political attitudes towards growth, and other development costs. Moreover, the housing value data includes all single-family units, so the data do not specifically identify a relationship between SDCs and prices of *new* housing.

Exhibit 46 shows that higher SDCs tend to be associated with higher average housing values. The relationship has a moderate correlation (R-squared of 0.3309), without controlling for other variables. The observed correlation does not indicate causality. The relationship could reflect

¹⁸⁶ Arthur C. Nelson and Mitch Moody. 2003. *Paying for Prosperity: Impact Fees and Job Growth*. Brookings Institution Center on Urban and Metropolitan Policy.

¹⁸⁷ Vicki Been. 2004. “Impact Fees and Housing Affordability.” *Cityscape: A Journal of Policy Development and Research*, 8(1): 139.

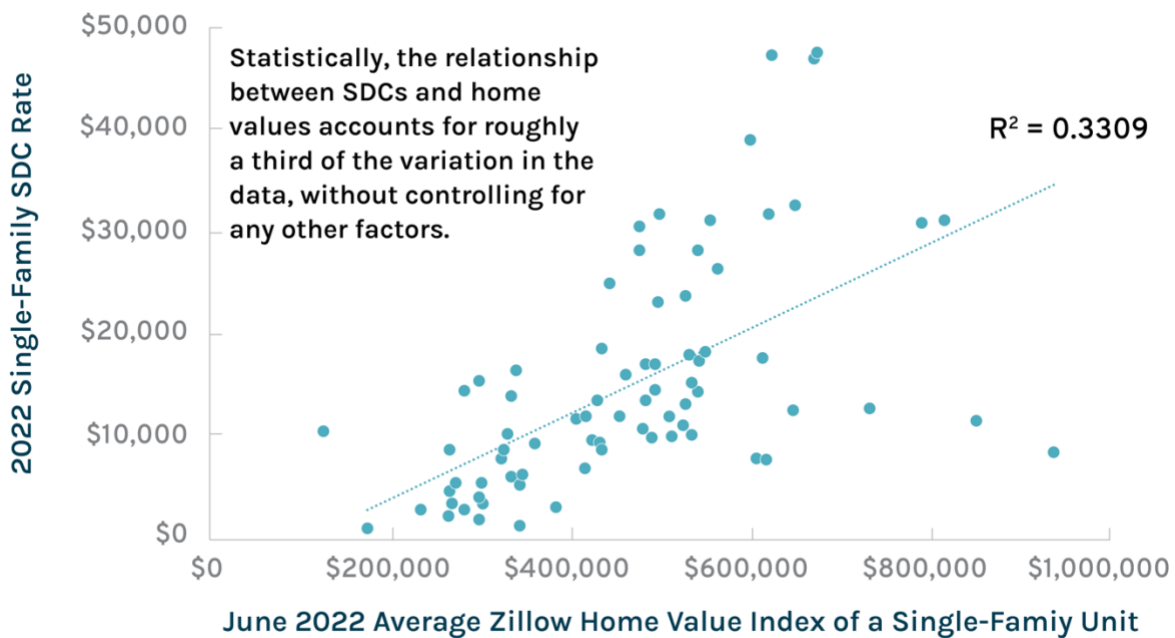
¹⁸⁸ John Yinger. 1998. “The Incidence of Development Fees and Special Assessments.” *National Tax Journal*, 51(1): 23-41.

¹⁸⁹ Jennifer S. Evans-Cowley and Larry L. Lawhon. 2003. “The Effects of Impact Fees on the Price of Housing and Land: A Literature Review.” *Journal of Planning Literature*, 17: 351-359.

the impact of SDCs on housing development costs and development feasibility. It could also reflect (a) a greater willingness to impose higher SDCs in areas with higher housing prices and stronger housing markets, (b) higher infrastructure quality driving both higher SDCs and higher housing values, or (c) other factors at play that happen to be related to both SDCs and housing prices (e.g., higher land and construction costs). The relationship appears to be stronger in areas with low and moderate housing values, and weaker in areas with high home values — there is a much greater range of SDC rates in communities with average housing values above roughly \$600,000 compared to the range for communities with lower housing values.

Exhibit 46. SDCs and Estimated Housing Values in Selected Oregon Cities

Source: ECONorthwest using data from FCS GROUP and Zillow Home Value Index (ZHVI) of Single-Family Units



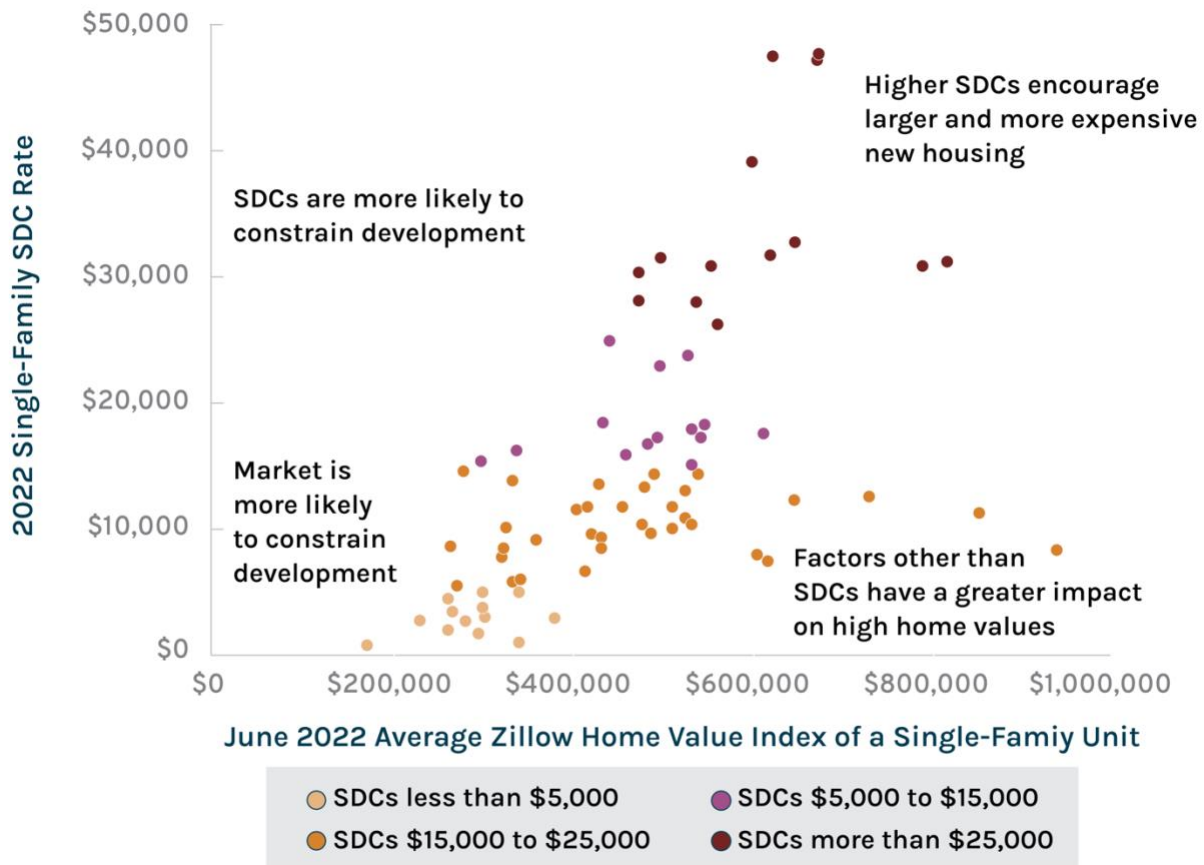
The data comparing SDC rates and housing values in Oregon also suggests implications for how SDCs may affect housing development. ECONorthwest’s analyses in Section 4.3.4 and developer input suggest that SDCs may have different impacts for communities that fall on different parts of this chart. As illustrated in Exhibit 47:

- Communities with below-average home values and average to above-average SDC rates could see greater impacts of SDCs on development potential. There appear to be only a few communities among the sample set where this could be a concern.
- Communities with above-average home values and above-average SDCs may not be inhibiting all housing development, but may be exacerbating challenges for lower-cost housing, particularly in places where SDCs are the highest. These areas could also potentially see a greater share of SDC costs passed through to homebuyers given the strength of the market demand.

- In communities with above-average home values and below-average SDCs, SDCs are probably not a major factor driving home values, and lower SDCs may not translate to lower home prices.
- In communities with below-average home values and below-average SDCs, SDCs may not be enough to substantially impact development feasibility, and market conditions may make development challenging with or without SDCs.

Exhibit 47. SDCs and Estimated Housing Value in Oregon Cities, By SDC Level

Source: ECONorthwest using data from FCS GROUP and Zillow Home Value Index (ZHVI) of Single-Family Units



Case Study: Trends in SDCs and Sales Prices in Bend, Oregon

To observe the potential relationship between SDCs and sales prices in Bend, Oregon, ECONorthwest compiled data from various sources. Data from 2005 to 2019 comes from previous work by Oregon’s Office of Economic Analysis to compare Bend’s Parks SDC rate and total SDCs to typical prices of new construction units. ECONorthwest updated the data for more recent years.

As shown in Exhibit 48, the total SDC in FY 2022 is about 220 percent higher than the level in FY 2005. During the same time, housing prices increased by about 190 percent.

However, and more importantly, the rate of change is different. The total SDC increased every year, but it increased faster before FY 2010 and after FY 2018. In contrast, the median housing

price in Bend is more cyclical and experiences greater swings. It increased at an even greater pace than SDCs in FY 2006 and FY 2007, dipped for almost six years, recovered for seven years, and then experienced a very large increase since FY 2020. The comparison shows housing prices are more volatile and likely to be influenced by many other factors beyond SDCs.

Exhibit 48. Percent Change in Single-Family SDCs and Median Housing Price in Bend, Oregon, Since Fiscal Year 2005

Source: ECONorthwest using data from Oregon Office of Economic Analysis, Central Oregon Association of Realtors, City of Bend

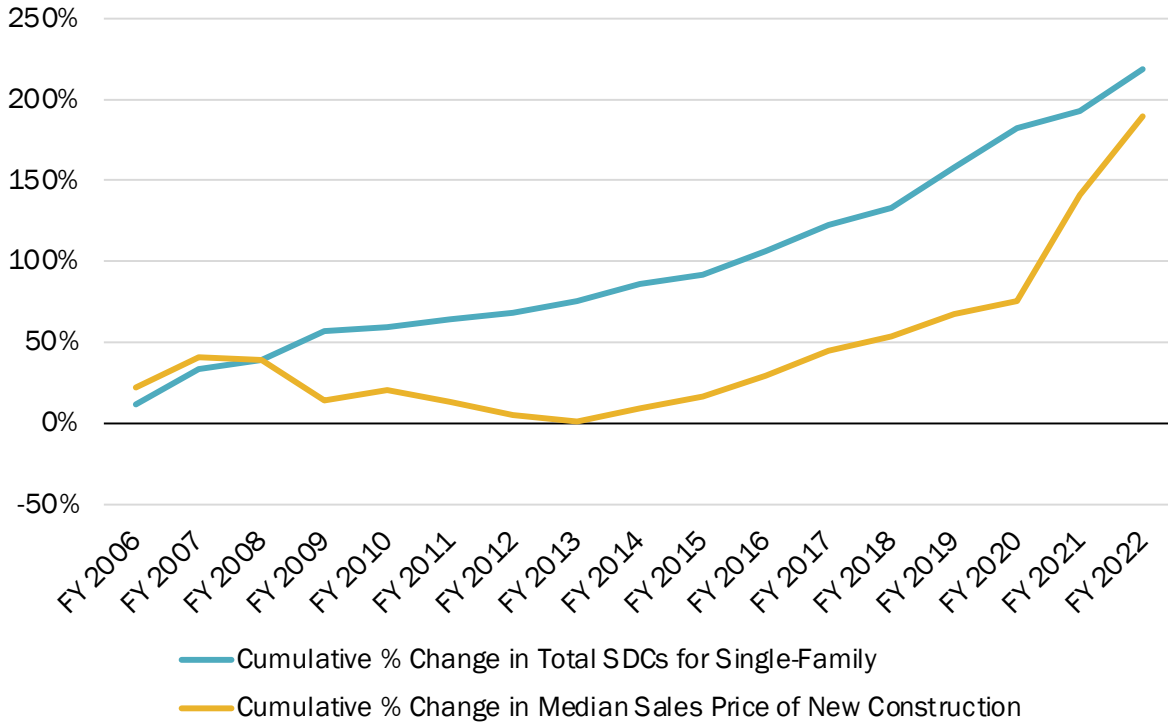
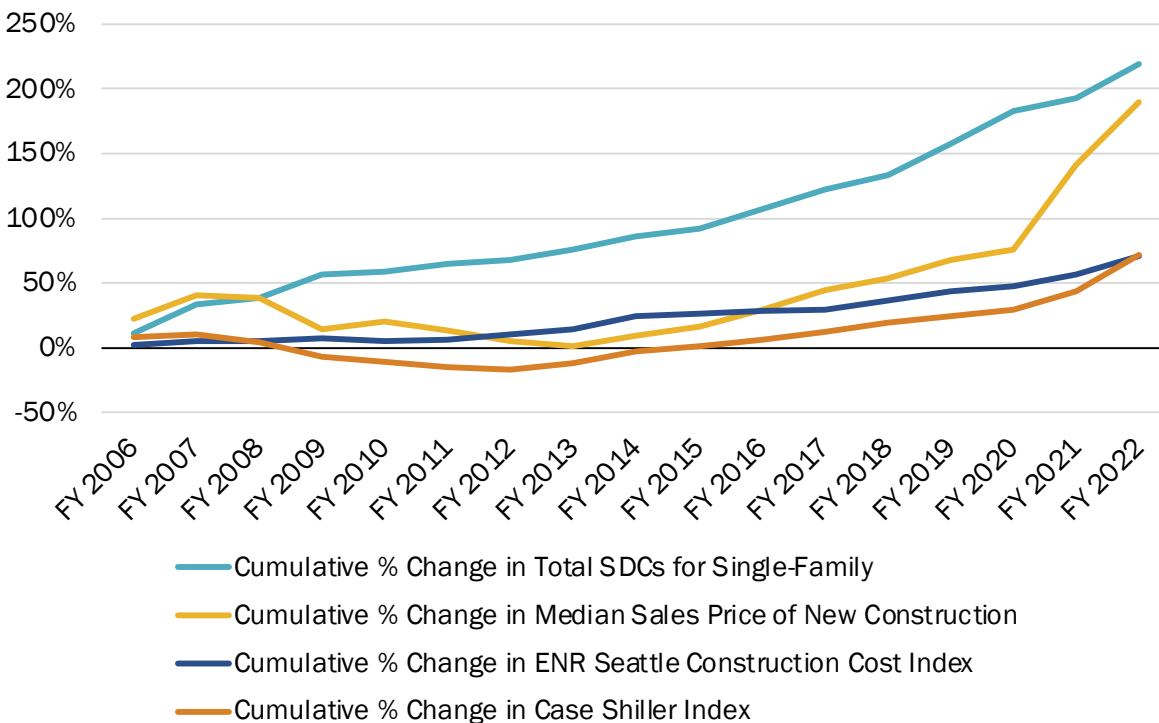


Exhibit 49. Percent Change in Bend Single-Family SDCs, Bend Median Housing Price, ENR Construction Cost Index, and Case-Shiller Index Since Fiscal Year 2005

Source: ECONorthwest using data from Oregon Office of Economic Analysis, Central Oregon Association of Realtors, City of Bend, Engineering New-Record, Federal Reserve Bank of St. Louis



Bend’s SDCs and median sales prices are more likely to be driven by regional or national factors. Exhibit 49 shows Engineering News-Record (ENR) Construction Cost Index for Seattle¹⁹⁰ has a closer trend to Bend’s SDCs than the median sales price does; the SDCs and the ENR Seattle Construction Cost Index move steadily upward without falling. It also shows that the Case Shiller Index, a national benchmark for single-family housing prices, has a closer trend to the median sales price than the SDCs do; the median sales price and the Case Shiller Index fall from FY 2008 to FY 2012 before starting to recover.

The correlation coefficient between SDCs and median sales prices in Bend is 0.82. In contrast, the correlation coefficient between SDCs and the ENR Seattle Construction Cost Index (CCI) is 0.98 (likely due to use of ENR CCI data for 20-cities to index SDC rates), and the correlation coefficient between Bend new construction home prices and the Case Shiller Index is 0.96. This suggests that within a given jurisdiction, home price trends are affected much more by broad housing market trends than by changes in SDC rates.

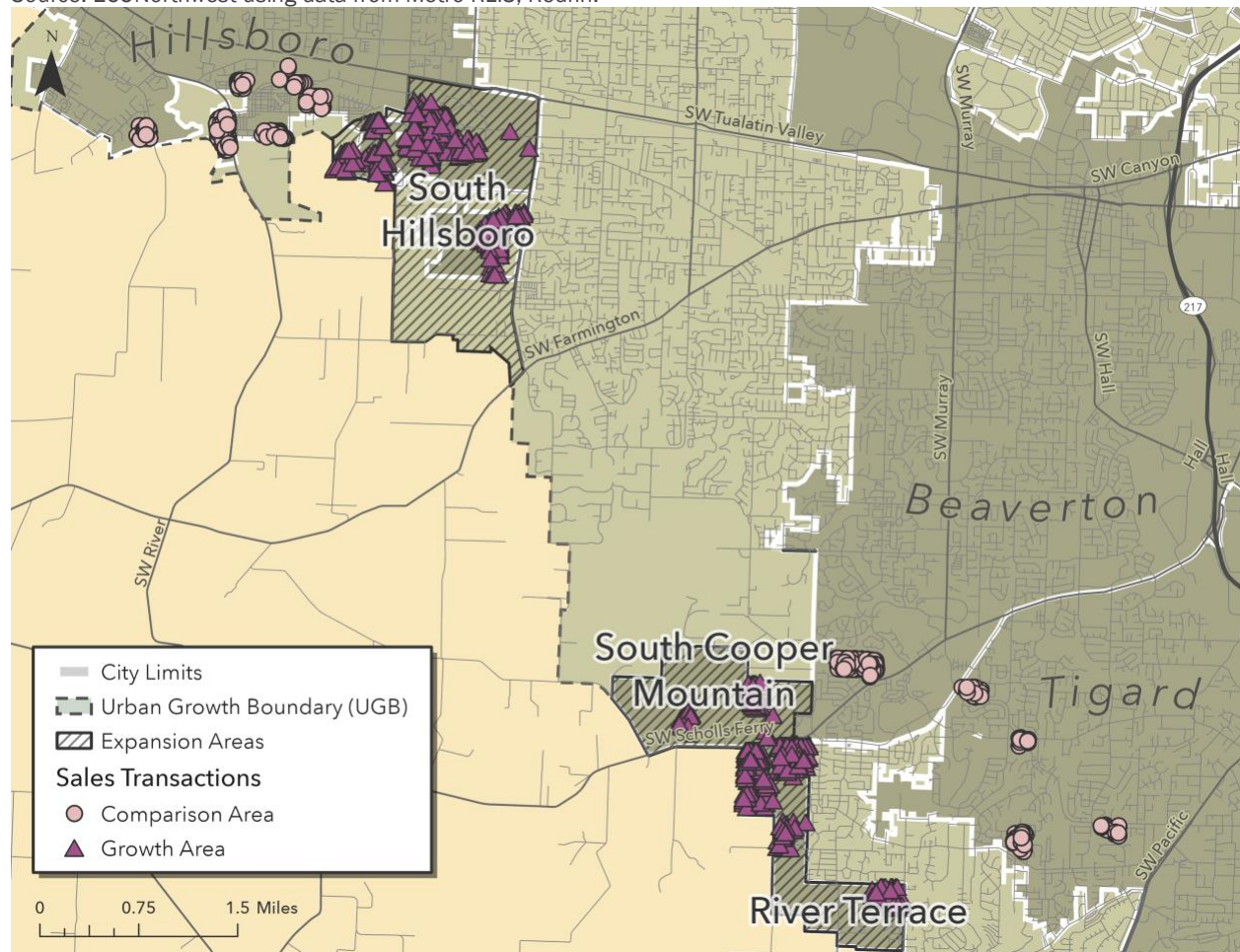
¹⁹⁰ Seattle is the closest city to Oregon in the markets tracked by ENR.

Case Study: SDCs vs. Home Prices in Planned Developments in Oregon

ECONorthwest identified several recent developments in Washington County that provide an opportunity to examine an example of the relationship between SDCs and housing prices at a more granular level. Each development faced different SDC costs, but all compete within the same subregional housing market. This analysis considered three areas that were recently brought into the Portland Metro urban growth boundary (UGB): South Cooper Mountain in the City of Beaverton, South Hillsboro in the City of Hillsboro, and River Terrace in the City of Tigard. Within these areas, ECONorthwest collected data on sales transactions for newly built homes and SDC rates to analyze whether there is a relationship between the SDC rates and home prices. ECONorthwest also considered development in adjacent subdivisions that were not part of these growth areas but were in one of the three jurisdictions and the same subregional housing market. These “comparison” developments were built in a similar span of time to the development in the growth areas, which allows for a statistical analysis of the impact of SDC on development outcomes within a similar set of market conditions. Exhibit 50 shows the locations of the three study areas and the analyzed properties. Appendix H includes more detail on the three areas.

Exhibit 50. Washington County Urban Growth Areas and Housing Observations

Source: ECONorthwest using data from Metro RLIS, Redfin.



Each of the urban growth areas has both standard citywide SDCs and supplemental area-specific SDCs to support new infrastructure development needed for each growth area. Additionally, developments in all three jurisdictions are subject to SDCs for sanitary sewer and stormwater imposed by Clean Water Services (CWS) and SDCs for transportation imposed by Washington County. Exhibit 51 summarizes the SDCs applied to single-family construction in South Cooper Mountain, South Hillsboro, and River Terrace ("growth areas") and the standard citywide rates applicable to adjacent developments that are not part of the growth area. Appendix H includes more detail on the SDCs.

Exhibit 51. System Development Charges for Detached Single-Family Housing, 2021

Source: ECONorthwest using data from City of Beaverton, City of Hillsboro, City of Tigard, and Washington County.

	Beaverton		Hillsboro		Tigard	
	Standard	South Cooper Mountain	Standard	South Hillsboro	Standard	River Terrace
Total SDCs	\$37,940	\$46,767	\$33,905	\$53,030	\$43,809	\$47,640
Difference from standard SDCs for Growth Areas	--	+23%	--	+56%	--	+9%

As shown in Exhibit 51, Hillsboro’s standard citywide SDCs are the lowest among the three studied areas (about \$34,000), but its supplemental SDCs are the largest (about \$19,000). In contrast, Tigard has the highest standard citywide charges (about \$44,000), but it has the lowest supplemental SDCs (about \$4,000). Note that the supplemental SDCs were largely used to distribute costs for area-specific facilities such as collector roads and local parks among property owners within the growth area. Developers who made the improvements generally received SDC credits for at least a share of those costs.

Using the data from sales transactions for new homes in these areas and the information on SDC rates, ECONorthwest constructed a linear regression model to test for a relationship between SDC rates and housing prices after controlling for other factors such as year built, year sold, home size, and lot size that are available in the sales transaction data or the tax lot data. (See Appendix H for methodology.)

The regression model showed that SDC rates are positively correlated with housing prices — that is to say, that higher housing prices were observed in places with higher SDCs — after controlling for building size, lot size, number of bedrooms and bathrooms, year built, and year sold. The model suggests that the observed difference in housing prices is greater than the difference in SDCs. Every \$10,000 in SDCs was associated with about \$7 greater per-square-foot price of newly built housing — about \$16,800 for a 2,400-square-foot single-family unit. This is illustrated graphically in Exhibit 52 for different SDC amounts. For example, when comparing a 2,400-square-foot single-family unit with SDCs that total \$35,000 to an identical unit with SDCs that total \$45,000, the \$10,000 difference in SDCs is associated with \$16,800 greater housing price.

Exhibit 52. Estimated Sale Prices of a Typical 2,400-Square-Foot Single-Family Housing Unit Associated with Varying SDC Levels

Source: ECONorthwest



There are several important limitations to keep in mind with this finding:

- A linear model was applied, but many of the underlying factors affecting price likely have nonlinear effects on housing prices. For example, an additional 100 square feet of living area is more valuable for a small home than a large one. More complex (but still imperfect) models attempt to capture more of this nonlinearity.
- Actual SDC rates paid for each unit are not known; instead, ECONorthwest estimated the likely SDC amounts associated with each unit based on the jurisdiction, whether it

was within a growth area with supplemental SDCs or not, and the year the home was built.¹⁹¹

- As noted previously, a positive correlation does not mean that higher SDCs **cause** higher home prices. There are several other possible explanations for this relationship, which are discussed below.
- Many of the factors that influence home prices are not captured in the available data (e.g., finish quality and design, neighborhood features, views, etc.). If these factors are also correlated with SDCs, the model would be over-estimating the relevance of SDCs by capturing the influence of some of these factors instead. An alternative regression model that compared home prices in the expansion areas to those in the comparison areas (without controlling for differences in SDCs) showed a positive relationship between home prices and location in an expansion area, with a similar level of statistical reliability as the SDC model. (See Appendix H for details.) Developer interviews also suggest this could be a factor, as discussed below.

While this case study does not show why SDCs correlate with higher housing prices, the additional price effect beyond the amount of the SDCs themselves observed in this analysis could support the interpretation that higher SDCs can increase costs beyond the direct cost of the SDC itself. Financing costs are one possible explanation for this type of pattern, as discussed in Section 5.1.3.

Findings From Developer Interviews

Interviews with developers involved in one or more of these areas suggest that some growth areas needed more expensive amenities—from home features to streetscape materials and green space design—to appeal to buyers and capture much of the demand for housing in this part of the region at the higher prices that make development feasible. Adding value to the home with these amenities offsets higher development costs due to SDCs and other infrastructure/land development costs and may have contributed to a price premium beyond direct SDC costs.

Developers were also heavily involved in creating the infrastructure funding plans for each of the growth areas. This allowed them to influence the supplemental SDC rates (to some extent) and to anticipate in advance of development what the total SDC costs might be. Because the amount of new infrastructure needed often makes land development in a new growth area expensive, developers may have known early on that housing in these areas would need to command some premium compared to other areas with lower infrastructure needs. This would suggest that the total amount of infrastructure needed along with the need to capture substantial demand from higher-income households may have driven a difference in housing prices.

¹⁹¹ SDCs paid at time of development were estimated by adjusting FY 2021 rates to the year before the unit was completed, using the *Engineering News-Record's* Construction Cost Index for Seattle. This index is the method each of these Washington County jurisdictions uses to adjust their SDC rates each year.

Part 5: SDC Administrative Policy Implications

Primary Contributors: Galardi Rothstein Group, ECONorthwest

5.1 Timing of SDC Assessment and Collection

5.1.1 Requirements and Current Practices

Issues related to timing include both the timing of the initial fee determination or assessment and collection of payment. In some cases, fee assessment and collection occur at the same time; however, collection policies may provide for deferral of payment to a later point in the development process or financing the SDCs over a period of time.

Statutory Requirements

As part of the definition of an SDC, ORS 223.299(4)(a) provides that SDCs must be “assessed or collected at the time of increased usage of a capital improvement or issuance of a development permit, building permit or connection to the capital improvement.” This provision implies ten distinct options for the timing of the assessment and collection of SDCs, as shown in Exhibit 53. Taken together, the statutes provide a high degree of flexibility for local governments to choose the timing for assessing and collecting SDCs.

Exhibit 53. Timing Options, Earliest to Latest

Source: FCS GROUP, based on ORS 223.299(4)(a)

Option	Assess	Collect
1	Issuance of development permit	Issuance of development permit
2	Issuance of development permit	Issuance of building permit
3	Issuance of building permit	Issuance of building permit
4	Issuance of development permit	Connection to the capital improvement
5	Issuance of building permit	Connection to the capital improvement
6	Connection to the capital improvement	Connection to the capital improvement
7	Issuance of development permit	Increased usage of a capital improvement
8	Issuance of building permit	Increased usage of a capital improvement
9	Connection to the capital improvement	Increased usage of a capital improvement
10	Increased usage of a capital improvement	Increased usage of a capital improvement

Notes: Reference to “increased usage of a capital improvement” is assumed to occur at occupancy.

Oregon Revised Statutes 223.208 also authorizes (but does not compel) local governments to provide financing of SDCs under the provisions of the Bancroft Bonding Act. These provisions allow local governments to provide loan-like financing of SDCs. Provider financing programs vary in terms of the type of development eligible, maximum financing term, interest rates charged, and program application fees and other requirements.

Survey Responses and Testimony

As part of its most recent survey on SDCs, LOC asked its members to provide information on any policies or practices related to “timing or payment accommodations.” Exhibit 54 summarizes cities’ responses.

Exhibit 54. Sample SDC Payment Timing Policies and Practices

Source: FCS GROUP, based on League of Oregon Cities, System Development Charges Survey Report (February 2020), pages 119-128.

City	SDC Payment Policy
Cornelius	SDC payments “delayed until a later date, such as the time of occupancy.”
Forest Grove	“Payments delayed have been for non-profit housing developments to allow the project to occur. Delayed payments are due prior to the issuance of certificate of occupancy.”
Lafayette	“Allowed a payment plan for SDCs as required by statute.”
Madras	“We will allow deferrals on payments up to 9 months or Certificate of Occupancy (whichever comes first).”
Medford	SDC payments “delayed until a later date, such as the time of occupancy.” A payment plan (“called bancrofting”) is also available.
Milwaukie	“Bancroft financing over a ten-year period or less.”
Newport	“Installment plan is an option to allow payment to be financed over time.”
Pendleton	SDC payments “delayed until a later date, such as the time of occupancy.”
Redmond	“Delaying collection of SDCs to occupancy” is available in enterprise zones.
Sherwood	SDCs can be deferred to occupancy if the transportation and/or parks SDC is greater than \$50,000.
Veneta	SDC payments “delayed until a later date, such as the time of occupancy” for affordable housing.
West Linn	SDCs can be financed under the provisions of the Bancroft Bonding Act.
Wilsonville	SDC payments “delayed until a later date, such as the time of occupancy.”
Winston	SDCs can be financed over ten years with semi-annual payments.

In some cases, payment accommodations vary based on the type of development (for example, multifamily and affordable housing).

5.1.2 Timing Implications for Service Providers

Much of the written testimony provided on House Bill 3040 responds specifically to the proposed amendments that related to the timing of SDC payments. Many service providers raised concerns about an increase in administrative costs and increased risk of nonpayment. Some testimony points to particular concerns around the potential for deferring SDCs until time of sale rather than certificate of occupancy, because local governments are not involved in the sale transaction. (See Appendix I for a summary of relevant testimony.)

Focus groups echoed this. As noted in *Oregon SDC Study: Summary of Service Providers* (Appendix A), the effort (and cost) required to collect SDCs varies with the public agency’s leverage at different points in the development process. For most public agencies, their moment of maximum leverage is when building permits are issued. If full payment of SDCs is a requirement for obtaining building permits, the public agency need not worry about enforcing payment, because developers are unlikely to begin work before building permits have been issued. While development is required to obtain a certificate of occupancy when the building is constructed prior to its use, some service providers expressed concern that the public agency’s leverage is greatly reduced at this stage, out of concern that some developers may forego the certificate of occupancy in order to avoid the fee. Other service providers noted that they make scheduling a final inspection contingent on the SDCs being paid, which has avoided these issues.

Based on follow-up correspondence with several jurisdictions that offer (or previously offered) deferral to certificate of occupancy, deferral programs have had mixed results in different communities. All noted an increase in administrative effort, but the magnitude ranged from less than an hour of staff time per application to multiple hours for multiple staff, depending on permitting systems and deferral program requirements. The most challenging non-payment issues reported were linked to commercial development, though some reported needing to follow up with residential developers when payment was due (e.g., if there was a time limit on the deferral in addition to a trigger at certificate of occupancy). Several reported little use of the program, while others see (or saw) substantial usage.

Some service providers are also concerned about the timing of revenues relative to the need for expenditures. In many cases, infrastructure needs to be constructed and land acquired in advance of when service to new development will be required. Delay in collection of SDC payments to later in the process may impact service levels or require other upfront funding sources. Focus groups with service providers suggest that the importance of timing of SDC collection varies among service providers. Some types of projects (e.g., park land acquisition in a new urban growth area) are highly sensitive to timing. Some agencies use SDC revenues to pay a portion of debt service on prior capital improvements and expend revenue quickly after it comes in. Others collect revenue for several years prior to funding projects and are less impacted by collecting funds later. Several service providers noted that the uncertainty inherent in SDC collections means that they cannot rely too heavily on revenue they have not yet collected, regardless of when the fees are collected during the development process.

Public agencies can also maximize interest earnings (to be used for future project costs) and minimize additional administrative costs by collecting SDCs early in the process. However, the financial value of the added interest earnings may be inconsequential. Although SDC revenues can be (and often are) used to help make debt payments, those payments must be made regardless of SDC revenue, so there is no change in interest payments or earnings based on when SDCs are received. However, for communities that are using SDC revenues for pay-as-you-go projects, there could be short-term interest earnings. Assuming an annual interest rate of 3 to 4 percent in a money market account, the financial impact of deferring by 2 years would be roughly 6 to 8 percent of the SDC amount.

5.1.3 Timing Implications for Developers

When a developer must pay SDCs can impact financial feasibility, because SDCs add costs before the value of the development is fully realized. The earlier that SDCs are paid, the longer the developer must “carry” the costs. The total cost of SDCs to developers includes not only the SDC amount but also the added interest payments associated with it if it needs to be financed over the construction period.

The size of the “carrying cost” of SDCs depends on loan terms and the duration of the development. For a construction loan, which is taken out prior to the construction of the project and paid back, refinanced, or converted to a long-term (“permanent”) loan after construction is

completed, interest rates are typically higher than they are for permanent loans on completed buildings, because there is less collateral to secure a loan.

The carrying cost can be calculated as the compounded interest rate on a loan. Although the carrying costs can vary based on specific project or developer characteristics and financing opportunities, typical rates range from 8-10 percent and the construction loan can last for 1 to 3 years. For example, if a construction loan has an annual interest rate of 8 percent and the loan is borrowed for 2 years of construction period, the monthly compounded interest cost is 16.64 percent of the SDC amount. If the entire SDC amount is financed, the total cost of SDCs to the developer would be 116.64 percent of the SDC amount. The interest cost would rise to 21.00 percent if the annual interest rate is 10 percent (for 2 years), and it would rise to 25.97 percent if the loan period is 3 years (at an 8 percent interest rate).

A delayed or deferred payment of SDCs would reduce the carrying costs and reduce the total cost of housing development at the margin. The likely impact is greater for projects that take longer to build and greater for developers that are less creditworthy and would borrow at a higher interest rate.

For developers who opt to pay SDCs from working capital rather than adding them to the construction loan, developer interviews suggest that there is still an opportunity cost associated with tying up the developer's available funds. Some suggested that this up-front cost means less money is available to pay for other pre-development and early construction costs that can accelerate project delivery.

While many developers pointed to timing of SDC payment as a factor that impacts their developments, others expressed indifference at when the cost is paid and whether it is financed, given that the construction loan is generally capped at a fixed percentage of total project costs, and the same amount will need to be financed either way.

5.2 SDC Exemptions and Waivers

5.2.1 Requirements and Current Practices

SDCs may be exempted for certain developments or redevelopment in cases where system impact is deemed negligible (in some cases of redevelopment or for specific development types). Exemptions or waivers may also be provided because of local policy objectives.

Exemptions Based on Negligible Impact

Redevelopment is generally exempt from SDCs unless the new use is estimated to place greater demand on the infrastructure system. System-specific exemptions may include:

- Parks – hospice or other end of life care facilities
- Water and sewer – ADUs that do not require an additional water meter

Exemptions or Waivers Based on Policy Objectives

Waivers (permanent or temporary) and exemptions have also been implemented by some local governments for developments like childcare facilities, ADUs, and economic development projects that are in enterprise zones or meet a target level of new job creation. Some communities also offer exemptions or waivers for affordable housing development, which are discussed in greater detail below.

Affordable Housing Exemptions or Waivers¹⁹²

There are differing views on the validity of SDC waivers or exemptions for any purpose that is unrelated to a reduced demand for system capacity. Some experts are of the opinion that it is inconsistent with ratemaking principles to grant SDC adjustments or exemptions for reasons that are not cost-based. Others point to modern rate-making principles that integrate affordability and equity considerations.¹⁹³ Oregon’s SDC Act does not explicitly address exemptions for affordable housing (or for any other class of development), as it says little about how SDCs should be calculated for specific developments (see Section 1.2.2). Other parts of state statute make clear that jurisdictions may offer whole or partial SDC waivers in exchange

¹⁹² Most communities that do not charge SDCs for affordable housing describe this as an “SDC Exemption”. Some make a distinction between “waivers” given on a case-by-case basis and “exemptions” that are set in policy. Others use these terms interchangeably. Throughout this document, when referring to programs that do not collect SDCs from affordable housing, both terms are used to mean policy-based exclusions that are applied consistently to all qualifying projects, unless a budgetary limit is set.

¹⁹³ See for example, “Affordability and Equity Considerations for Rate-Setting” (Eric Rothstein, Stacey Isaac Berahzer, Joe Crea, and Michael Matichich for *Journal AWWA*, September 2021) which argues that water, wastewater, and stormwater service providers have a social responsibility to ensure universal, affordable access to services, as part of their rate-setting framework.

for local affordability requirements,¹⁹⁴ but some experts recommend that agencies should “backfill” any foregone SDC revenue with resources external to the SDC fund to ensure the agency can complete necessary infrastructure projects and avoid compromising equitable share protection for other SDC payers. (Nationally, 14 of the 26 states that have explicit impact fee enabling statutes require impact fees to be waived for qualifying affordable housing developments. Five of these require fees to be paid from an unrelated funding source; nine enable—and require—waivers without making up the lost revenue.¹⁹⁵) A Construction Excise Tax (CET) is one option available to local governments to backfill lost SDC revenue from exemptions for affordable housing.¹⁹⁶

Oregon communities that offer SDC exemptions for affordable housing include Portland, Bend, Tigard, Eugene, Salem, Lake Oswego, Ashland, McMinnville, Florence, Newberg, and Forest Grove. Most service providers that offer SDC exemptions/waivers for affordable housing limit it to regulated/income-restricted affordable housing. Some cities and service providers have set a cap on the amount of waivers (number of units or dollar amount) they will issue for a given time period, but most do not backfill foregone revenue from other sources.¹⁹⁷ (Section 5.2.2 describes specific example policies and their results.)

In communities that have not implemented affordable housing exemptions/waivers, staff sometimes expressed concerns about monitoring and enforcement over time. Many raised questions about where replacement funding would come from. In some cases, revenue from construction excise taxes is used to offset lost SDC revenue from affordable housing exemptions.

¹⁹⁴ ORS 197.309 indicates that SDCs may be waived for qualifying affordable multi-family housing and lists such waivers as one of several “incentives” that jurisdictions must choose among if they impose local affordable housing set-aside requirements (“inclusionary zoning”).

¹⁹⁵ Newport Partners and Virginia Polytechnic Institute and State University, *Impact fees & Housing Affordability: A Guide for Practitioners*, prepared for the U.S. Department of Housing and Urban Development Office of Policy Development and Research, June 2008. <https://www.huduser.gov/portal/publications/impactfees.pdf>

¹⁹⁶ Construction Excise Taxes also increase the cost of housing development, but scale with permit value, making them inherently more progressive than SDCs. Affordable housing is also automatically exempt from CETs under Oregon law.

¹⁹⁷ ECONorthwest research and City of Lake Oswego Council Report: Review of System Development Charge for Affordable Housing, December 21, 2021, Agenda item Number 5.2. <https://www.ci.oswego.or.us/WebLink/DocView.aspx?id=1911236&dbid=0&repo=CityOfLakeOswego&cr=1>

5.2.2 Impacts on Affordable and Lower-Cost Housing Development

Benefits for Regulated Affordable Housing Development

Based on past interviews by ECONorthwest with affordable housing providers related to local measures to support regulated affordable housing development, there are two main benefits of SDC exemptions, based on their reduction to development costs:

- **Less funding from state, federal, or local sources is needed to make a given affordable housing development financially feasible.** This can mean less time and effort spent securing gap financing, particularly for smaller projects and those not using typical funding sources (see details below).
- **Lower costs help projects score better for competitive funding opportunities,** which often score projects based, in part, on costs per unit.

The impacts and benefits of exemptions vary somewhat depending on the specific funding sources and project scale, as summarized below.¹⁹⁸

- **Low Income Housing Tax Credit (LIHTC) projects:** SDCs are included as an eligible cost in calculating tax credit equity for a given project, which means that waiving SDCs reduces development costs but also reduces the amount of equity available to the project to some extent. (Tax credit equity typically covers roughly 30-70 percent of project costs depending on the specific tax credit program, with the balance coming from loans or gap financing.) While exemptions are still beneficial, and interviews with affordable housing developers suggest that they can make a difference in making projects work, only a portion of the savings translates into reduced need for gap financing or debt. However, some LIHTC funding that is awarded competitively includes a scoring system related to a project's cost-effectiveness relative to similar projects, so reducing or eliminating SDC costs can help achieve a higher score by reducing the cost per unit.¹⁹⁹
- **Other competitive state funding sources:** Many state funding programs for affordable housing have limits on the amount of funding per unit and projects needing less subsidy per unit are scored higher.²⁰⁰ For these projects, all cost reductions are helpful and benefit the project on a dollar-for-dollar basis.

¹⁹⁸ ECONorthwest, "Progress Report of Hillsboro Affordable Housing Tools and Evaluation of Additional Tools," prepared for the City of Hillsboro, April 12, 2022.

¹⁹⁹ Oregon Housing and Community Services, "NOTICE OF FUNDING AVAILABILITY (NOFA) #2022-5: Affordable Rental Housing Projects with 9% Federal Low Income Housing Tax Credits," <https://www.oregon.gov/ohcs/development/Documents/nofa/2022/LIHTC9-NOFA-2022-5-v1.1.pdf>

²⁰⁰ Examples include the LIFT program (<https://www.oregon.gov/ohcs/development/Documents/nofa/2022/2022-2-LIFT-Rental-NOFA.pdf>) and the General Housing Account Program (<https://www.oregon.gov/ohcs/development/Documents/nofa/2021/VETS-21/2021-Vets-NOFA.pdf>).

- **Small projects and other funding sources:** Smaller affordable projects that may have many smaller funding sources tend to be more sensitive to development cost per unit because of the difficulty of securing funding. This can include affordable middle housing development, some affordable homeownership projects, and other small, innovative projects. For these projects, the primary concern is closing the gap between project costs and what the affordable units will generate in revenue, and waiving SDCs can offer a substantial benefit.

From a statewide perspective, reducing cost per unit should mean the ability to fund more housing units with the same pool of funds. This is likely true in practice at least to some extent, though the total amount of affordable housing funds going towards SDCs is not being tracked at present, and there are many other factors driving the cost of building affordable housing (see Section 4.3.3). Given the estimates in Section 4.3.3, SDCs represent a small share of overall affordable housing costs; however, given the number of new affordable housing units funded by OHCS each year, the total SDC-related expenditures associated with affordable housing development are likely substantial. From 2016 through the end of 2021, OHCS approved nearly 13,000 new construction affordable rental housing units for funding. Of these, roughly 7,100 are located in 11 communities with known SDC exemption programs for affordable housing (see list in Section 5.2.1).²⁰¹ While the SDCs charged for those projects have not been specifically tracked, at the estimated average total SDC rate for multifamily housing statewide (close to \$10,000 per unit²⁰²), this would mean roughly \$71 million in SDC savings (in today's dollars) from jurisdictions offering exemptions, and roughly \$59 million (in today's dollars) spent on SDCs in jurisdictions that do not offer exemptions across six years of projects.

On the other hand, if the funding not provided for SDCs needs to be made up from other state, federal, or local sources, then exemptions shift that cost from one funding source to another. Funds for both affordable housing and local infrastructure investments are in short supply relative to needs.

Case Studies: Impacts of SDC Exemption Programs

The case studies that follow offer evidence of strong participation by affordable housing developers in local SDC exemption programs, and of cost savings for those developments. As noted above, However, it is difficult to measure the extent to which the SDC exemptions have changed the amount or type of affordable housing development that has occurred in those communities.

²⁰¹ Oregon Housing and Community Services, "Affordable Rental Housing Draft Dashboard," updated December 4, 2022.

https://public.tableau.com/app/profile/oregon.housing.and.community.services/viz/AffordableRentalHousingDraftDashboard_16154170714140/Story1

²⁰² While the Affordable Housing Cost Study estimated an average of \$8,000 per affordable housing unit for SDCs statewide, this includes projects with and without SDC exemptions.

In addition, sometimes SDC exemptions for affordable housing units can incent developers who primarily build market-rate housing to build some units at a defined price point or income affordability level to qualify for the exemption. Based on developer interviews and focus groups, the SDC exemptions have been essential to market-rate developers' ability to produce housing at a lower price point, even if these units may not remain affordable over the long-term to the same extent they generally do with more traditional affordable housing development.

Bend Exemptions for Affordable Housing

About the Program

Since December 2017, the City of Bend has offered SDC exemptions to all rental and for-sale housing affordable to households making 80 percent or less of area median income (AMI) through a deed restriction.²⁰³ The City's Affordable Housing Advisory Committee has the authority to approve exemptions on City water, sewer, and transportation SDCs, and can also recommend exemptions for parks SDCs levied by the Bend Park and Recreation District. Upon approval, the exemptions are structured as a forgivable loan at 3 percent annual interest, with no payments due as long as the property remains affordable for at least five years. If the affordability restrictions are removed within five years of the project's completion, the SDCs become payable, with interest, by the original applicant.²⁰⁴

Program Impacts

Between 2016 and 2021, Bend granted exemptions on 577 units of affordable housing, for a total value of \$5.2 million (Exhibit 55). Nearly all of these exemptions have been granted to nonprofit developers of affordable housing.

Exhibit 55. City of Bend Affordable Housing SDC Exemptions, 2016–2021

Source: ECONorthwest, using data provided by City of Bend

Housing Type	Units	City SDCs Exempted	Parks SDCs Exempted
Single-Family	140	\$1,112,517	\$205,628
Multifamily	407	\$3,731,480	\$2,017,896
Other (incl. shelters)	30	\$383,670	\$165,520
Total	577	\$5,227,666	\$2,389,044

For the few projects by market-rate developers in Bend that have been granted SDC exemptions to date, the program achieved only short-term affordability. One example is Revere Avenue Renaissance, a 12-unit development of five market-rate townhomes, one affordable townhome, and six one-bedroom rental apartments affordable at 60 percent of AMI. The seven affordable units were granted SDC exemptions by the Bend City Council in 2015; the project also received funding from the City's Affordable Housing Fund.²⁰⁵ Three years after completion, the affordable townhome and rental units were sold at market rate as an investment property.²⁰⁶

²⁰³ Prior to December 2017, the City Council granted SDC exemption requests on a case-by-case basis.

²⁰⁴ City of Bend, Municipal Code Chapter 12.10.120 (<https://bend.municipal.codes/BC/12.10.120>)

²⁰⁵ City of Bend, "Request for Proposals for System Development Charge Exemptions: Program Year 2015." https://bend.granicus.com/MetaViewer.php?view_id=9&clip_id=359&meta_id=13633

²⁰⁶ Zillow sales listing (https://www.zillow.com/homedetails/135-NW-Revere-Ave-Bend-OR-97703/250781754_zpid/)

Given City policies, the property owner would most likely have been required to repay both the SDCs and Affordable Housing Funds with interest at that time.

Portland Exemptions for Affordable Homeownership

About the Program

The City of Portland offers SDC exemptions for affordable rental and for-sale housing through several different programs. Exemptions are available for affordable rental units as part of the City's Inclusionary Housing policy, which applies to developments with 20 or more units.²⁰⁷ Another program grants exemptions for rental housing affordable at 60 percent of median family income for developments not subject to Inclusionary Housing requirements.²⁰⁸ Portland also offers SDC exemptions for affordable homeownership, linked to the City's Home Ownership Limited Tax Exemption (HOLTE) program. The focus here is on the homeownership SDC exemption because its link to a tax abatement program means that there is more data available regarding its usage and to consider its potential as an incentive for market-rate developers to build affordable homes.

For-sale homes qualify for the exemptions on water, sanitary sewer, transportation, and parks SDCs if they are new construction, have at least three bedrooms, and have a sale price no more than \$430,000.²⁰⁹ Exemptions are applied at the time of permitting, before construction begins, but must be verified when the house is sold. Qualifying buyers for affordable units must have an income no greater than 100 percent of median family income, adjusted for household size. If a project that applied for SDC exemptions is sold above the price cap, or to a non-qualifying buyer, the SDCs must be paid, with interest and fees.²¹⁰

Program Impacts

In addition to some City data on SDC exemptions for homeownership, the impact of these exemptions can be approximated based on data from the HOLTE program, which has the same income and sale requirements.²¹¹ In practice, all HOLTE-eligible properties also receive SDC exemptions.

In the most recent City report on HOLTE from fiscal year (FY) 2017–2018, 59 eligible properties sold within the 2017 price limit of \$350,000 or the 2018 limit of \$375,000 (Exhibit 56). Among the

²⁰⁷ In Portland's Central City, the SDC exemptions apply to all residential units when the Inclusionary Housing requirements are met.

²⁰⁸ Portland Housing Bureau, "SDC Exemption Program for Rental Projects," <https://www.portland.gov/phb/sdc-exemption/rentals>.

²⁰⁹ Projects located within City-designated transit corridors qualify with two bedrooms. See: <https://www.portland.gov/phb/holte/property-eligibility#toc-two-bedroom-eligibility-areas>

²¹⁰ Portland Housing Bureau, "SDC Exemption for Home Ownership," <https://www.portland.gov/phb/sdc-exemption/home-ownership>; Portland Housing Bureau, "Homebuyer Opportunity Limited Tax Exemption (HOLTE) Program," <https://www.portland.gov/phb/holte>.

²¹¹ HOLTE is a 10-year tax abatement program. The City limits approvals to 100 units per year.

59 properties produced through the program in FY 2017-18, nearly half (29) were built by for-profit builders.²¹²

Exhibit 56. Average Sale Price of HOLTE-Qualified Homes, 2017–2018

Source: ECONorthwest, using data from City of Portland²¹³

Geographic Area	Total Units	Average Sales Price	Units (For-Profit Builders)	Average Sales Price (For-Profit Builders)
North Portland	1	\$349,950	1	\$349,950
Northeast Portland	11	\$357,625	2	\$362,500
Southeast Portland	47	\$316,295	26	\$335,679
Southwest Portland	-	-	-	-
Total	59	\$324,571	29	\$338,021

By 2018, there were more than 1,200 active HOLTE properties in Portland, down from 1,346 the prior tax year due to the tax exemption expiring.²¹⁴ This suggests that more than 1,300 units were built under the program from its inception through 2018.

A more recent City report provides data on the units produced through the SDC exemption and HOLTE program between 2016 and 2019 and the income levels of the buyers, as shown in Exhibit 57. Participation increased in 2019, with the increase mostly in units purchased by households earning over 80 percent of AMI.²¹⁵ These units are more likely to have been produced by for-profit builders, and are not subject to lasting affordability restrictions, but must meet the maximum sales price and buyer income requirements for the program.

²¹² Portland Housing Bureau, *Residential Property Tax Exemption Programs 2017-18 Annual Report*, <https://www.portlandoregon.gov/phb/article/739936>

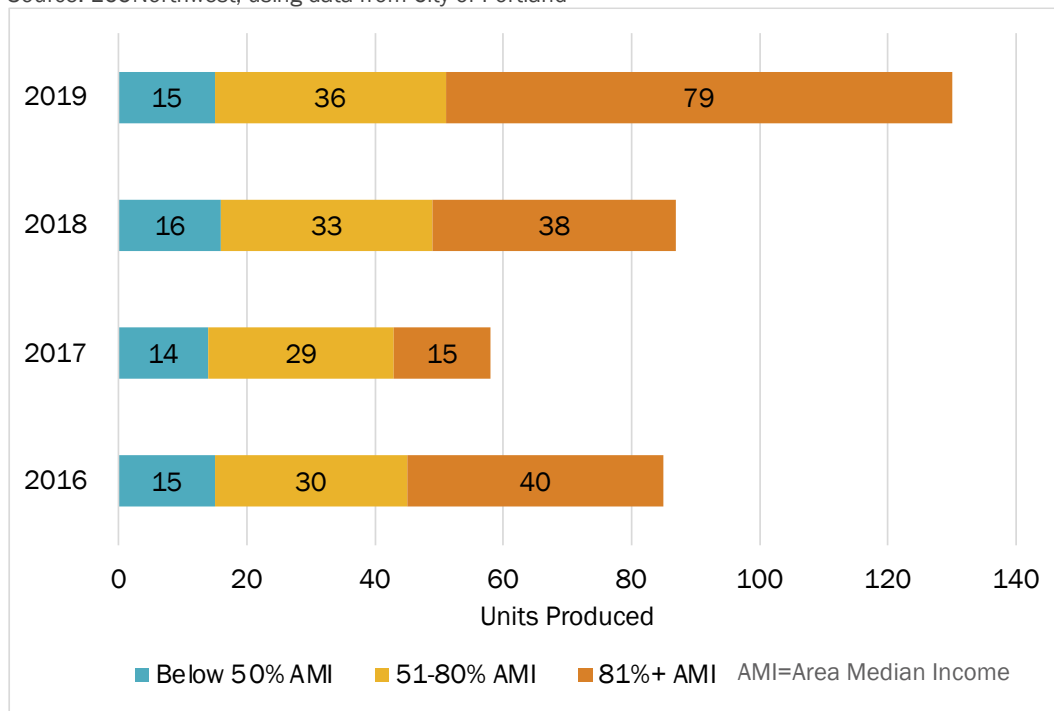
²¹³ *Ibid.*

²¹⁴ *Ibid.*

²¹⁵ Portland Housing Bureau, City of Portland, “State of Housing 2020,” December 2020. <https://www.portland.gov/sites/default/files/2021/phb-soh-2020-web-part-4.pdf>

Exhibit 57. Units Produced by Buyer Income as a Share of Area Median Income for Portland’s Homeownership SDC Exemption, 2016–2019

Source: ECONorthwest, using data from City of Portland²¹⁶



Between 2016 and 2019, the number of units built using HOLTE and SDC exemptions was less than the City’s annual 100-unit cap,²¹⁷ despite the fact that the cap was reached within roughly 6 months in fiscal year 2017-18.²¹⁸ This is likely because some properties approved for the exemption are ultimately not sold to a qualified buyer or do not meet other transaction criteria and do not receive the exemption. There is less data available on the units that are initially approved for the program but ultimately do not qualify for the exemption, but some recent sales transactions and input from developers familiar with the program suggests that some sell for more than the maximum sale price under the program, though they may still be lower-cost than other new homes.

There are a number of examples of homes built by market-rate developers under the HOLTE program that have offered a lower price to qualifying buyers than to other buyers, passing on the SDC savings directly.²¹⁹ This was also noted in developer focus groups. This shows that the

²¹⁶ Portland Housing Bureau, City of Portland, “State of Housing 2020,” December 2020.

<https://www.portland.gov/sites/default/files/2021/phb-soh-2020-web-part-4.pdf>

²¹⁷ *Ibid.*

²¹⁸ Portland Housing Bureau, *Residential Property Tax Exemption Programs 2017-18 Annual Report*,

<https://www.portlandoregon.gov/phb/article/739936>

²¹⁹ Based on a review of recent sales transactions where the HOLTE program is mentioned in the listing.

SDC exemption is, at least some cases, directly translating to lower home prices and supporting production of lower-cost housing that is affordable to moderate-income households.

5.3 SDC Credits

5.3.1 Statutory Requirements

As discussed in Section 1.2.2, the Oregon SDC statutes require local governments to provide credits for “qualified public improvements” (QPIs). The required credit is only for the improvement fee charged for the type of improvement being constructed. Furthermore, for onsite QPIs²²⁰, the required credit is only for the portion of cost that exceeds the local government’s minimum standard facility size or capacity needed to serve the particular development project or property.”²²¹

The statutes provide flexibility to local governments to provide greater credits by providing credit beyond the improvement fees that would have otherwise been imposed, allowing for the transferability of credits, or providing credits for a capital improvement not identified in the SDC capital project list.

5.3.2 Credit Implications for Service Providers

Credit policies differ across providers in terms of project eligibility, creditable costs, and transferability. Service providers indicate that credits provide important incentives to construct needed infrastructure, particularly in green field areas. Furthermore, developers may be able to construct projects at lower costs than would be incurred by the local government. Local credit policies reflect the need to balance infrastructure needs and project flexibility with revenue sufficiency and capital project prioritization.

As discussed previously, some jurisdictions enact SDCs that are based on a fiscally-constrained project list in order to keep the fee levels lower than they otherwise would be. Limiting credits to projects on the adopted SDC project list may provide local governments with greater control over the timing and prioritization of projects. The greatest risk to capital improvement project control may result from extension of credits to projects that are not on a fiscally-constrained project list, as there would be no disincentive to developers to build these projects. Foregoing SDC revenue in exchange for a developer-constructed facility that is not included in the SDC means that less funding for projects that are on the project list and may be higher priority.

For determination of the creditable amount, the statute differentiates between onsite and offsite improvements, where the required credit for improvements on or contiguous to the development property (onsite improvements) are limited to the portion of costs that exceed “the local government’s minimum standard facility size or capacity needed to serve the particular

²²⁰ Improvements that are located in whole or in part, on or contiguous to property that is the subject of development approval.

²²¹ ORS 223.304(5)

development project or property.”²²² This differentiation has potential implications for development of the SDC project list and calculation of the SDC cost basis. If certain project types (e.g., local streets and water utility mains sized for local needs or minimum standards only) are assumed to be funded directly by developers without eligibility for SDC credits, then they are excluded from the SDC calculations.

In cases where calculated credits do not fully compensate a developer for all eligible QPI costs, the statutes provide for application of credits “against improvement fees that accrue in subsequent phases of the original development project.” In some cases, local governments will also allow developers to transfer credits to other developments or developers. However, expansion of a credit program may require additional administrative costs owing to the need to track projects and reimbursements over time and across developers.

5.3.3 Credit Implications for Developers

Like SDCs, infrastructure constructed as a condition of development approval is a cost to developers that needs to be factored into calculations to determine project feasibility. To the extent that the required infrastructure exceeds the capacity needed to serve the development, SDC credits provide a mechanism to reimburse the developer for this additional cost.

SDC policies vary across local governments, and the level of specificity in published SDC and credit policy information also varies, which may make it difficult for developers to have a clear estimate up-front of the total cost burden. This is particularly the case when (as the statute requires) credits are limited to the improvement fees levied on the new development, given the complexities of some charge bases.

In conversations with developers, many noted the importance of SDC credits, and several identified concerns or opportunities for improvement in how they are administered, as summarized below (see Appendix B for details):

- Several developers expressed frustration with the lack of certainty regarding SDC credits, often due to lack of clarity about what share of costs are attributable to excess capacity.
- Carrying costs can erode the value of the credits, because the developer is paying for infrastructure up front and has to pay interest on those costs.
 - In some cases, jurisdictions require developers to pay SDCs up front even if they are building infrastructure that will qualify for credits, and then reimburse or refund the credit eligible share at the end. This particularly increases carrying costs.

²²² ORS 223.304 (5)(a)

- Some noted that allowing SDC credits to be transferred to future development on other sites makes them more valuable and can allow developers to take on larger infrastructure projects.

5.4 Program Information and Transparency

5.4.1 Statutory Requirements

As discussed previously, prior to 2021, statutory requirements related to annual SDC program accounting and information sharing were limited to annual revenue and expenditure accounting and making the methodology available to interested parties 60 days in advance of a public hearing. With respect to annual reporting, the specific requirements are as follows:

The local government shall provide an annual accounting, to be completed by January 1 of each year, for system development charges showing the total amount of system development charge revenues collected for each system and the projects that were funded in the previous fiscal year. The local government shall include in the annual accounting: (a) A list of the amount spent on each project funded, in whole or in part, with system development charge revenues; and (b) The amount of revenue collected by the local government from system development charges and attributed to the costs of complying with the provisions of ORS 223.297 to 223.316.

With the passage of House Bill 3040 in 2021, public agencies must now meet the additional informational requirements codified in ORS 223.316. Specifically, any local government that imposes one or more SDCs must publish on its website or by alternate accessible means (free of charge), the following information:

- The current SDC fee rates for each type of development.
- Details of the methodology used to determine SDC fee rates.
- A list of capital improvement projects that will receive funding from system development charge fee revenue.
- Contact information for a local official responsible for answering questions about system development charges.²²³

Even before the most recent changes to the statutes, many local governments made significant efforts to make information related to SDCs readily available and understandable. Service providers use a wide variety of tools and practices, and the cost and level of effort required to manage these programs similarly varies. Some local governments have dedicated staff that manage one or more aspects of the SDC program, while others need to rely more heavily on outside consultants.

As with other elements of the SDC program, a local government must balance the administrative requirements and costs associated with the development of educational tools

²²³ ORS 223.316

and transparency measures—which may impact SDC fee levels by increasing program compliance costs—with the desire for enhanced public understanding and transparency.

5.4.2 Common Practices and Local Jurisdiction Perspectives

In considering program transparency best practices, it is important to consider points in the process where information is developed and how that information may be shared most efficiently and effectively to different audiences.

Methodology Development and Adoption

Service providers note that developing a SDC methodology is a significant undertaking. This is particularly true for agencies that desire a high level of stakeholder engagement in the process. Some providers indicate involvement of a standing or ad hoc committee in the development of the SDC methodology and project list. Involvement of stakeholders in the process helps some communities to evaluate the various methodological options to reflect local policy objectives and priorities. A number of service providers noted the importance of stakeholder engagement in the development of the SDC project list, to ensure investment in infrastructure is equitably distributed across the service area.

As discussed previously, the statute has had a long-standing requirement that an SDC methodology must be made available to interested parties at least 60 days in advance of the first public hearing. Most service providers typically go beyond this requirement by making methodology reports available more broadly on public websites and in public buildings (e.g., city hall or public library). Furthermore, because methodology reports are generally technical documents, many jurisdictions provide summary information in the form of fact sheets, frequently asked questions, and presentation graphics, in an effort to make the information more accessible to the general public.

While the general public may best be served by information at a summary level in order to understand the context of SDCs in infrastructure funding, it is critical that those paying the fees have a more in-depth understanding of the basis for the charges and be able to estimate the impact that the fees and other program policies will have on their development project. In this case, best practices include providing detailed fee schedules and administrative policies and procedure documents, and “SDC calculators” that help more accurately estimate SDC charges based on specific development characteristics.²²⁴

²²⁴ For example, see City of Gresham fee calculator (<https://greshamoregon.gov/SDC-Calculator/#/>) that allows a developer to enter data about a development project directly on the city’s webpage and then see the calculated charges. The City of Corvallis (<https://www.corvallisoregon.gov/ds/page/permit-fees>) offers a similar tool.

Ongoing Reporting and Information Sharing

SDC Schedules

Once the SDC methodology and project list have been adopted, fee levels may change over time due to application of inflationary indices, phase-in plans, or changes to project list costs. Updated SDC schedules need to be readily available on the website through one or more mechanisms such as a comprehensive agency-wide fee schedule, dedicated SDC portion of the website, or on individual infrastructure department pages.

Project Lists

Project lists should be reviewed and updated periodically (e.g., in conjunction with capital improvement plan updating) and any modifications documented. The SDC statutes allow for the project list to be updated at any time, and formal notification of changes is only required if the SDC is to be increased. It is not uncommon for changes to be made to the project list without a need to increase the SDC (as in the case of replacing a lower priority project with a higher priority project of similar cost). While not required by statute, some local governments will formally adopt the new project list by resolution to increase transparency and facilitate internal tracking.

Annual Accounting

The level of information included in annual SDC accounting varies across jurisdictions. Generally, total annual SDC revenue is tracked and readily available by infrastructure system. In some cases, revenues by SDC component (reimbursement, improvement, and compliance) are accounted for individually, as each has different limitations on eligible expenditures.²²⁵

Service providers participating in focus groups indicate some reporting challenges with the level of detail available for project expenses. While reporting of annual project expenses is generally straightforward, projects that span multiple years are more complicated to report and track due to differences in internal project numbers used for identifying a project as it moves from SDC project list to the capital budget and then finally to a fixed asset.

Though not required by statute, some service providers prepare annual accounting reports and send them to interested stakeholders.

²²⁵ Reimbursement fee revenue may be spent on any capital cost associated with the system for which it was collected, while improvement fee revenue is limited to SDC-eligible costs on the project list, and compliance-related expenditures must be accounted for separately.

5.4.3 Implications for Development and Developer Perspectives

SDC Rate Information and SDC Estimates for Specific Developments

As described in the developer focus group summary in Appendix B, many developers highlighted the importance of knowing how much the SDCs would be in advance. Several developers noted issues with major changes to SDCs during the pre-development and development period. Some set money aside specifically to address fee increases, but there are fewer options to adjust to cost-increases that occur later in the development process. Certainty on SDCs is particularly important for affordable housing development. When SDC costs increase unexpectedly, it can be very hard to find additional funding or cost-savings in other areas at the last minute when funding amounts have been set in advance.

Multifamily developers also highlighted challenges with estimating SDCs early in the development process because they can vary depending on the unit configurations (e.g., number of bedrooms and bathrooms) and site layout (e.g., impervious surface), which may not be known until late in the process. Developers who build middle housing (e.g., duplexes, triplexes, fourplexes, townhouses, and cottage clusters) also noted that many jurisdictions do not have separate SDC rates for middle housing. It can be difficult to determine which SDC rates should apply to a middle housing development when housing type definitions are not clearly listed in published SDC rate or methodology documents.

Part 6: Conclusions

This study responds to a legislative request for a comprehensive review of Oregon’s historical and current policy and practice for implementing system development charges, with a particular focus on their interaction with housing affordability. While it is beyond the scope of the study to make recommendations, its findings can help inform future policy discussions.

For several decades, SDCs have provided a consistent mechanism for growth to pay for growth in Oregon. Today, SDCs are an essential part of funding the infrastructure needed for growth given limitations on other funding mechanisms and growing infrastructure needs and costs. A shift away from SDCs at the local level could have unintended consequences by increasing reliance on mechanisms like utility rates or user fees (which can burden low-income households) and direct developer exactions (which can make it more difficult to allocate costs among multiple parties), or by delaying needed infrastructure projects.

At the same time, the state faces a housing affordability crisis. It has become increasingly clear that housing production is essential for keeping prices and rents from escalating out of reach of most households. SDCs can be essential to funding the infrastructure needed to enable new development, but also contribute to the cost of building housing. While SDCs are just one among many cost drivers for housing development, they disproportionately impact lower-cost housing, including entry-level homes, middle housing, and smaller housing units, exacerbating other cost and market factors that make these types of housing harder to build. In communities with demand for high-end housing, SDCs can tip the scales further in favor of higher-cost housing development; in those without demand for high-end housing, they can create one more barrier to housing production overall. SDCs also increase the amount of state, federal, or local funding needed to make affordable housing development possible. It remains appropriate and important for growth to contribute proportionately to growth-related costs. Designing and using SDCs to accomplish this goal while balancing the need to build a broad range and abundant supply of housing requires a nuanced approach.

Jurisdictions have—and value—the flexibility to establish SDCs that reflect their local cost conditions, system needs, funding and policy priorities, and development context. They also have options to design SDC rate structures that reflect differences in impacts by type or size of housing unit, to allow SDCs to be paid later in the housing development process, and to offer reductions or exemptions for affordable housing. Successful programs in some Oregon communities suggest that these measures can benefit housing production and affordability to some extent while retaining SDCs’ core function as a funding mechanism for the infrastructure that enables growth to continue. Broader adoption would require overcoming common concerns, such as revenue loss and legal uncertainties for exemptions, and administrative costs and nonpayment risks associated with deferring SDC payments, some of which the state could help address. At the local level, jurisdictions making updates to SDCs, housing policy, or infrastructure funding strategies could consider some of these measures for implementation, learning from the experience of other jurisdictions to craft successful programs. The magnitude

of the benefits from these programs can be hard to measure, but this report suggests they can make a difference for some of the developments that are most sensitive to SDC costs.

Because there are legal limits to jurisdictions' ability to align SDCs with housing cost, a bigger shift in how SDCs affect housing production and affordability would require targeting alternative funding sources towards SDC and infrastructure costs associated with affordable and lower-cost housing development. If the alternative funding sources have less impact on these housing types and on lower-income households generally, this could help level the playing field for these types of housing without undermining the purpose and value of SDCs or increasing cost burden on low-income households in other ways.

Acronyms and Glossary

Acronyms

ADUs – Accessory Dwelling Units

ARRA – American Recovery and Reinvestment Act

CAA – Clean Air Act 1970

CWA – Clean Water Act of 1972

CBO – Congressional Budget Office

CCI – Construction Cost Index

CPI – Consumer Price Index

ENR – Engineering News Record

ERUs – Equivalent Residential Units

FHA – Federal Housing Association

GO bonds – General Obligation bonds

HBA – Homebuilders Association

HOLTE – Home Ownership Limited Tax Exemption Program

LOC – League of Oregon Cities

LIHTC – Low Income Housing Tax Credit

NAHB – National Association of Home Builders

NMHC – National Multifamily Housing County

OBOA – Oregon Building Officials Association

OMB – Office of Management and Budget

ORS – Oregon Revised Statutes

Glossary

Adjudicative Exactions – exactions specific to an individual parcels determined through a property-specific decision process

Affordable Housing – income and/or rent-restricted housing that is affordable to households earning a certain income level

Area Median Income (AMI) – also known as Median Family Income (MFI), this is an estimate of the median income for a given metropolitan area adjusted by household size, produced annually by the U.S. Housing and Urban Development (HUD) as the basis for affordable housing projects' income limits, rent limits, and loans

Assessed Value – the taxable value of a property

Asset – facility or structure that is part of the infrastructure system

Capacity – the amount of demand that an infrastructure system or facility can accommodate

Capital Improvements – major improvements to public facilities (excluding routine maintenance), including water supply, treatment, and distribution; wastewater collection, transmission, treatment, and disposal; drainage and flood control, transportation; and/or parks and recreation (see ORS 223.299 for the statutory definition)

Carrying Costs – costs of owning a property, including property taxes and interest financing costs

Certificate of Occupancy – a document verifying that all inspections have been completed for a new building and that the structure meets the applicable codes

Charge Basis – how SDC costs will be allocated across different development types, sizes, and contexts

Compliance Costs – the costs of complying with SDC statutes, including the costs of developing SDC methodologies and providing an annual accounting of SDC expenditures, and potentially other costs related to SDC administration

Cost Basis – the pool of eligible infrastructure costs to be recovered from the SDC

Cost Incidence – which party or parties ultimately incur a given cost

Depreciation – reduction in value of an asset or structure over time

Equity (financial) – ownership investment in real estate; the difference between the value of an asset and the debt on the asset

Equity (distributional) – fairness and justice in how costs and benefits are allocated

Essential Nexus – a concept established by the U.S. Supreme Court in *Nollan v. California Coastal Commission*²²⁶ as a test for the validity of an exaction: whatever is being required (exacted) as a condition of development approval must be clearly and closely related to the impact of the proposed development

Exaction – a requirement the local government for proposed development to provide some form of contribution or payment as compensation for impacts of the development on infrastructure systems or public goods

Excess Capacity – a share of the capacity of an infrastructure facility that exceeds the needs of a given development

Financial Feasibility – a determination of whether a project’s value or revenues will justify the costs to construct it, given the expected level of risk

Fixture Units – a unit of measure of plumbing (water or wastewater) demand, calculated based on the plumbing code

Hard Costs – construction labor and material costs

Housing Affordability – households’ ability to find housing within their financial means, with or without public support or restrictions in place, across a range of income levels. This is commonly measured based on spending no more than 30 percent of gross income on housing (rent or mortgage, plus utilities)²²⁷

Housing Production – new housing development or other increases to the supply of housing units

Impact Fees – legislative monetary exactions adopted by a governing body and applied consistently to development applications

Improvement Fee – an SDC fee for costs associated with capital improvements to be constructed

Infrastructure Systems Plans – master plans or public facility plans for a given infrastructure system (e.g., parks master plans, transportation system plans, water or wastewater system master plans, or stormwater master plans)

²²⁶ *Nollan v. California Coastal Commission*, 483 U.S. 825, 837 (1987)

²²⁷ The 30 percent standard is widely used but simplistic. See discussion and additional context related to defining affordability and affordable housing in the following memorandum:

Nick Meltzer, Sadie DiNatale, Bob Parker & Rebecca Lewis, University of Oregon, “Definitions of Affordable Housing,” to the Department of Land Conservation and Development and the HB 4079 Rulemaking Advisory Committee (RAC), September 19, 2016. https://www.oregon.gov/lcd/UP/Documents/UO-Defining_Affordability.pdf

Internal Rate of Return (IRR) – a commonly used financial metric in the real estate industry to estimate the profitability of real estate investments as discount rate measured in percentage points

Level of Service (LOS) – a way of defining the quality or amount of service provided by a given infrastructure system or facility

Local Jurisdictions – cities, counties, or special districts

Local Option Levies – a special voter-approved property tax levy outside the limitations on permanent property tax rates under Oregon’s property tax system

Lower-Cost Housing – market-rate housing (without income or rent/price restrictions) that offers lower sale prices or rents than most new housing in a given area and typically also has lower development costs

Market Context Area – generalized geographies capturing differences across the state in housing market factors and development cost factors

Market-Rate Development/Housing – housing in which prices or rents are (or can be) based on market demand and willingness to pay rather than meeting a defined level of affordability

Measure 5 – an Oregon ballot measure from the early 1990s that introduced property tax rate limits and cut tax rates

Measure 50 – an Oregon ballot measure from the late 1990s that cut taxes, introduced assessed value growth limits, and replaced most tax levies with permanent tax rates

Middle Housing – duplexes, triplexes, quadplexes, townhouses, and cottage clusters

Monetary Exactions – requirements by local governments that developers pay money as a condition of development approval

Multifamily Residence/Dwelling – a property with multiple dwelling units on a common lot, excluding middle housing (the dwelling units may be occupied by families or nonfamily households)

Nominal Dollars – dollar value based on the year of expenditure, unadjusted for inflation

Original Cost – the cost of building a facility at the time it was built

Pro Forma – a financial model that estimates the feasibility of a new real estate development based on the building’s financial performance

Qualified Public Improvements (QPIs) – according to ORS 223.304(4): “Qualified public improvements are improvements required as a condition of development approval, identified in the SDC capital project list, and either: a) Not located on or contiguous to property that is the

subject of development approval; or b) Located in whole or in part on or contiguous to property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.”

Ratemaking Principles – not defined in statute, but generally considered to include establishing fee levels consistent with the costs of providing the service and recovering costs from system users in proportion to their use or impact; however, modern interpretations argue that water, wastewater, and stormwater service providers have a social responsibility to ensure universal, affordable access to services as part of their rate-setting framework

Rate-setting – methodology and policy decisions associated with establishing an SDC rate and fee structure

Real Market Value – an estimate of the market value of a property in an arms-length sales transaction

Reimbursement Fee – a fee for costs associated with capital improvements already constructed, or under construction when the fee is established, for which the local government determines that capacity exists²²⁸

Replacement Cost – the cost to replace an existing asset with a similar asset at current construction costs

Rough Proportionality – a concept established by the U.S. Supreme Court in *Dolan v. City of Tigard*²²⁹ as a test for the validity of an exaction: the amount of the exaction must be roughly proportionate to the magnitude of the impact that the exaction is intended to address

Scaling Factors – development characteristics that relate to potential system impact used to set SDC rate structures to account for those differences in impacts

Service Providers – local jurisdictions (cities, counties, or special districts) that build and operate water, wastewater, stormwater, transportation, or parks systems

Single-Family Residence/Dwelling – a single detached dwelling unit on its own lot (the dwelling unit may be occupied by a family or a nonfamily household)

Soft Costs – development costs excluding the direct cost of construction, such as design and engineering, project management, financing, permits, and fee costs

Special Districts – a form of local government that provides specific public services

²²⁸ ORS 223.299(3)

²²⁹ *Dolan v. City of Tigard*, 512 U.S. 374 (1994)

System Development Charges (SDCs) – impact fees established and administered consistent with Oregon’s SDC Act

SDC Act – State statute (ORS 223.297 to 223.316) that regulates SDCs, first passed in 1989

SDC Credits – credits against SDC fees for construction of a qualified public improvement

SDC-eligible Projects – capacity-increasing projects that are included in an infrastructure system plan project list

SDC Methodology – documentation of an SDC calculation in compliance with the SDC Act

SDC Exemptions or Waivers – policies to not to charge a certain type or category of development an SDC. Most communities that do not charge SDCs for affordable housing describe this as an “SDC Exemption”. Some make a distinction between “waivers” given on a case-by-case basis and “exemptions” that are set in policy. Others use these terms interchangeably. Throughout this document, when referring to programs that do not collect SDCs from affordable housing, both terms are used to mean policy-based exclusions that are applied consistently to all qualifying projects, unless a budgetary limit is set

Tax Levies – taxes established to provide a specific amount of tax revenue

Total Development Costs – the full cost of a development project, including construction labor and material, land costs, and “soft costs” such as design and engineering, project management, financing, permits, and fees

Townhouse – units that share common walls with each unit on an individual lot or parcel

Trip Ends – the beginning (origin) or end (destination) of a one-way trip

User Fees – fees local governments charge for the use or ongoing availability of government services like parks, streets, public safety, and others

Water Resources – According to the Congressional Budget Office, water resources include “water containment systems (dams, levees, reservoirs, and watersheds) and sources of freshwater”²³⁰

Water Utilities – According to the Congressional Budget Office, water utilities include “supply systems for distributing potable water as well as wastewater and sewage treatment systems and plants”²³¹

²³⁰ Congressional Budget Office, “Public Spending on Transportation and Water Infrastructure, 1956 to 2014,” March 2015, page 3.

²³¹ *Ibid.*, page 3.

Working Capital – the available financial resources that a company can readily use to pay near-term costs

Appendices

Appendix A. Summary of Input from Service Providers

Contributors: ECONorthwest, Galardi Rothstein Group, FCS Group

ECONorthwest, along with consultants from the FCS Group and the Galardi Rothstein Group, conducted seven focus groups for large cities and small cities, special districts, parks providers, and the Portland Bureaus. The focus groups are important for understanding the varying perspectives on the importance of SDCs for infrastructure funding, factors driving SDC setting, timing of collection, and considerations related to measures to reduce the impact of SDCs on housing.

Questions Asked

Below is the set of questions used to help guide the focus groups.

1. **Role of SDCs in Funding Infrastructure:** How important are SDCs to your jurisdiction/district?
2. **SDC Rate Increases vs Cost Escalation:** Are you indexing your SDCs based on changes in construction costs or other measures? Has that been enough for them to keep up with increases in actual project costs over time?
3. **Actual Rates and Factors Influencing Rate Setting:** Is your organization currently charging the maximum that your methodology supports? If not, why not? What are some of the top factors that influenced your organization's most recent SDC setting decisions?
4. **Equity Considerations:** How and to what extent did equity considerations factor into your rate-setting decisions? If it did, how did you address equity in the rate-setting process and in evaluating equitable outcomes?
5. **Strategies to reduce impacts of SDCs on housing:** Some communities and districts are considering measures to reduce the impact of SDCs housing affordability. Does your organization currently have any affordable housing measures in place? If so, how are they working? If not, what concerns do you have about implementing them?
6. **Timing:** How does the timing of SDC collection compare to when you need to build facilities? To what extent does the specific timing within the development process (e.g., certificate of occupancy vs. building permit) affect your organization's ability to build facilities when they are needed? Do you have other concerns related to the timing of when SDCs are paid?
7. **Transparency Requirements:** As you may know, HB 3040 also included a requirement to make information about SDCs including rates, methodology, and the project list available to the public via a website (unless the jurisdiction/district does not have a website). Has addressing this requirement been a challenge? Does your jurisdiction/district have any additional tools to provide information to the public regarding SDCs?

8. **Questions for us / other thoughts** (*if time permits*): Do you have questions for OHCS or the consultant team about the study? Are there other things you are concerned about related to SDC requirements?

Jurisdictions That Attended

Cities			
Wilsonville	Newport	Eugene	Bend
Lebanon	Tigard	Albany	Forest Grove
Redmond	Wilsonville	Medford	Beaverton
Hillsboro	Redmond	Springfield	Falls City
Lake Oswego	Newberg	Tualatin	Sherwood
Sisters	Gladstone	Klamath Falls	Vale
Cornelius	North Bend	McMinnville	Ashland
Warrenton	Cannon Beach	Oregon City	Millersburg
Sherwood	Stayton	Banks	Banks
Hood River	Philomath	Pendleton	Independence
The Dalles			
Special Districts and Counties			
Tualatin Valley Water District	Roseburg Urban Sanitary Authority	Clean Water Services	Washington County
Twin Rocks Sanitary District	Canby Utility	Sunrise Water Authority	Oak Lodge Water Services
Metropolitan Wastewater Management Commission	Washington County	Rockwood Water People's Utility District	Harbor Sanitary District
Clackamas County	Jackson County Roads	Rogue Valley Sewer Services	Housing Authority of Clackamas County

Clackamas Water Environment Services	Hood River County	West Slope Water District	Eugene Water & Electric Board
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Parks and Recreation Districts

Willamalane Park and Recreation District	North Clackamas Parks and Recreation District	Hood River Valley Parks & Recreation District	Wilsonville Parks and Recreation
Tualatin Hills Park & Recreation District	Bend Park and Rec District	City of Albany Parks & Recreation	Clackamas County Parks
Crook County Park & Rec District - Prineville, OR	Portland Parks & Recreation	Metro Parks and Nature	Oregon Recreation & Park Assoc
Clackamas County	Lane County Parks	Sunset Empire Park & Recreation District	Northern Wasco County Parks and Recreation District
Corvallis Parks and Recreation Department	Medford Parks & Recreation		

Summary of Stakeholder Feedback and Themes

The balance of this memorandum summarizes feedback from the focus groups by topic and theme. Paraphrased statements from attendees are shown in *italics*. Where relevant, the type of service provider making the statement in question is indicated in brackets (e.g., *[small city]*).

Role of SDCs in Funding Infrastructure

Critical funding source for infrastructure in communities experiencing growth

- Some jurisdictions would not be able to make land available for development within the UGB without SDCs to extend infrastructure.
- Some Metro jurisdictions use specific SDCs or higher SDC rates in high-growth areas.
 - In many new growth areas, service providers have evaluated how the areas needed to be served from a parks and recreation standpoint and added area specific supplemental SDCs. This method has been successful, as developers see the market value in parks and recreation facilities.
- Several small cities noted they had not experienced a lot of growth occurring and little SDC revenue, but more recently there have been more developments that have brought in more SDCs and there's more need for capacity-increasing projects to support growth.
- Some in larger cities feel there is a disconnect between for-profit developers and jurisdictions when developers want to reduce or waive the SDCs jurisdictions rely on to help pay for infrastructure investments that facilitate housing development.

SDCs prevent over-reliance on user fees and utility rates to cover cost of new capacity

- Public utilities rely on political/public support for raising capital (unlike investor-owned utilities). SDCs are key to messaging that growth is paying for growth, and utility rate increases are for meeting other capital and operating needs.
- Some believe user fees should only be used for maintenance and operations of existing facilities, as cities do not want to burden existing users with helping to pay for new development (through an increase in user fees).
- Would need to replace revenue with large utility rate increases, new fees (transportation), and GO bonds (parks). Equity issues from redistribution of growth-related costs.

Critical for funding large infrastructure like major sewer interceptor, water and sewer plants

- A number of water/sewer service providers noted the importance of SDCs in helping pay for major projects, that may not have happened without them. While not the sole source, they often contributed a meaningful amount or helped pay debt service.

Themes

Stakeholder Feedback

SDC credits for improvements built by developers are an important component of SDC expenditures in some communities

- For larger developments and greenfields, credits play an important role, especially in larger cities.
 - Jurisdictions have seen a number of capacity expanding infrastructure projects being built by developers then getting SDC credits.
 - Some report not charging parks SDCs in expansion areas because developers typically opt to build the park and get credits instead. Will also issue transportation credits for oversized facilities. This is less common outside of expansion areas.
- SDC credits sometimes provide cost savings when developers build infrastructure.
 - Jurisdictions or providers (particularly parks districts) have worked more with developers to deliver infrastructure need for their developments at better rates with economies of scale, and then receive SDC credits.

Revenues can be limited in places with slow growth

- Communities experiencing mostly infill may get less SDC revenue.
 - *Most development consists of tear-down/rebuilds and no SDCs are collected because usually get credit for previous development.*
 - *Would love to rely on SDCs for capital improvements but landlocked—little expansion room, no empty land in town, only comes from infill or teardown and build more housing.*

There are other funding options beyond SDCs and utility rates, but they are limited

- Tax limitations in Oregon have had particularly acute impact on parks and transportation funding.
 - *Areas with enterprise zones and Urban Renewal districts further limit revenue.*
- Urban renewal more and more relied on to fill gaps, capturing revenue from other districts
- Some jurisdictions use general fund allocations or special property tax levies to supplement SDCs
 - Larger cities have supplemented SDCs with discretionary allocations from the General Fund, but very limitedly.
 - One county has a voter-approved tax they levy to help pay for county road projects on major arterials.
- One community with a tourism-based economy adopted a prepared food tax.
- A few communities have implemented utility fees for transportation and parks to pay for maintenance and improvements.

Themes

Stakeholder Feedback

	<ul style="list-style-type: none">○ But for parks, this now gets stretched to cover things like ROW and greenways in addition to the parks● State and federal funds are more limited now than in the past● It can be a struggle to fund parks and transportation projects the most, because they often do not collect user fees like water, sewer, and stormwater
SDCs are key to leveraging other funds	<ul style="list-style-type: none">● Parks providers noted they often leverage SDCs as grant matching dollars to close gaps and have few other sources available as a local match. Many jurisdictions also noted using SDCs as local match for transportation projects.
SDC revenue is volatile year to year, and varies as a share of capital funding	<ul style="list-style-type: none">● Portion of infrastructure funding from SDCs varies from year-to-year due to various factors including the rate of growth and the type of improvements being constructed.
Lack of funding for operations and maintenance can limit use of SDCs	<ul style="list-style-type: none">● SDCs cannot be used for maintenance or operations of existing facilities.● Hard to justify building more facilities when struggling to fund existing facilities<ul style="list-style-type: none">○ Some jurisdictions do not feel like it is feasible to expand without an adequate and stable source of revenue for maintenance and operation.
Some small cities do not charge SDCs at all	<ul style="list-style-type: none">● Reasons why small cities are not collecting SDCs:<ul style="list-style-type: none">○ Little development (which requires less infrastructure development)○ Political concerns○ Developers required to install infrastructure○ Voter approval required by local policy in some communities

Themes

Stakeholder Feedback

Methodology Choices and Cost Allocation

Infill and denser developments are sometimes, but not always, less costly to serve

- New density requirements create capacity issues with infill development, such that it may be more expensive to serve due to the need to upsize existing infrastructure in a developed area
 - Waiving or reducing SDCs for higher density housing can be problematic since those housing types are more reliant on parks.
- Infill may have lower transportation impacts, so some jurisdictions offer discounts for denser developments or to areas with better access to transit or that are more walkable.

Infill areas may need a different approach

- Some jurisdictions are changing approach to fund upgrades to existing facilities that expand capacity and may also replace existing aging infrastructure.
 - Areas experiencing more infill development than greenfield development may need a different way of defining LOS and growth capacity – specifically, improvements that increase capacity through more efficient use of existing facilities versus building new facilities.

Some service providers have implemented or are working on a tiered approach for residential SDCs based on unit size

- Tiered fees are typically based on local data showing reduced household size, trips, or other measures of impact.
 - Some researched how occupancy changes by square footage, showing there was less impact when fewer people lived in a unit.
- Others are considering making this shift, or in the process of working on it.

Many expressed concerns about a “one size can fit most” approach

- Service providers value local discretion in SDC methodology and policy.
 - Some felt that the nuance of affordability and quality of life people get from infrastructure investments is best dealt with at the local level.

Themes

Stakeholder Feedback

Cost Recovery

Many are not charging the maximum amount supported by methodology

- Many communities made policy choices to charge less than the full SDC determined by methodology and project list.
 - Some policy makers are hesitant to levy the maximum amount the methodology would support to stay competitive or support affordable housing development.
 - Decision-makers often want to see how proposed SDC rates compare to other jurisdictions in an effort to not be the highest.
- Some small cities in particular have avoided setting SDCs rates at the maximum their methodology supports in order to remain competitive.
 - *Needed to stay below “closest neighbor of similar size.”*
 - *More important not to create disincentives to development, remain competitive with other similar communities.*
- Some adjust project lists rather than reducing SDC rates from max to keep SDC rates lower.
 - Use of funded and unfunded project lists, or SDC project lists established based on viable SDC rate.
 - *Not all projects made it onto funded list. Created kind of a target max SDC that they would charge, prioritized project to that amount.*
- Some phase in SDC rate increases over multiple years to avoid making big jumps.
 - Large increases sometimes prompted phase-in periods.

Other cities and service providers charge the full amount or have made bigger increases

- Some communities have a policy inclination that growth should pay for itself and charge max SDC rates.
- Others have caught up more recently (after keeping SDC rates artificially low for many years), and come to recognize a greater/urgent need for infrastructure upgrades.

Themes

Stakeholder Feedback

Most (but not all) service providers index SDC rates

- Many use Engineering News Record (ENR) Construction Cost Index (CCI), either the 20-City average or the City of Seattle index, but the timeframes vary and this can change the outcome.
- Parks providers often also account for changes in land costs.
- A few do not index SDC rates.
 - Some only increase SDC rates when they believe there's a viable justification.
 - *Calculate every year—effectively renew methodology every year, no cost escalator. Not that much work – have staff capacity [in a large city] to do it in house.*

SDCs not keeping pace with rising costs due to a variety of factors

- Inconsistent indexing.
- Some felt that available indices are not representative of local variations in costs (e.g., Seattle ENR not representative of Portland construction market).
- Methodology for indexing can create lag.
 - *Even when SDC rates are indexed year-to-year, they don't appear to keep up because indexes tend lag on their own.*
- Some infrastructure systems can lag more than others.
 - *Index numbers for land cost (for parks) are based on assessed values rather than market values, so they continue to fall behind on top of the existing lag.*
 - *Transportation costs have the hardest time keeping up with construction cost escalations.*
 - *Park districts are experiencing the same cost increases as developers but are not able to recoup any costs.*
- Many (though not all) are seeing actual costs rise faster than their index.
 - *Not keeping up with cost of materials. Index only includes cost of construction (not land), falling further behind.*

Methodology updates are a substantial undertaking

- Methodologies and project lists are not updated regularly.
 - *Takes 5-10 years to update SDC. Hard to keep system plans fresh—spend increment on updating master plans, CIP, and methodology. [small city]*
 - *Methodology updates every 10 years. [large city]*

With SDC escalation falling behind costs,

- Districts haven't been able to move capital projects forward due to stagnant SDCs (against costs).
 - *Have had to make some reductions to projects with costs increasing.*

Themes

Stakeholder Feedback

some service providers can fund less

- *It is becoming more common for sudden projects to come up, but funding hasn't been allocated for them.*
- *Falling behind on ability to expand capacity because of cost escalations of past 5 years or more. Far exceed ability to update methodology to keep pace. [small city]*

Equity and Affordability Considerations

Varying perspectives on what the relevant equity issues are for SDCs

- Some felt SDCs should only consider impact, not ability to pay (particularly in the context of affordable housing waivers).
 - *SDC is based on the impact—equity is more about reflecting differences in impacts.*
- Some felt the key equity consideration is putting costs on development vs. existing users.
 - *There's substantial concern around over-burdening existing users/long-term residents if user-fees are increased.*
- Some emphasized supporting affordable housing regardless of impact.
 - *Backfilling to support regulated affordable housing with guaranteed longevity. Very much an equity and need for affordable housing conversation, understanding that market won't deliver it.*
- Some focused on reflecting differences in impact for different housing types and larger vs. smaller homes.
 - *Recognize equity piece related unit size.*
- Some focused on equitable expenditures of SDC revenue/provision of facilities
 - *Access to walkable parks is an important element of the equity conversation.*
 - *Equity considerations on allocation side, how to decide what gets funded. Major factor in deciding where to spend the revenue.*
 - *Understanding who benefits from the investments is more important than where the money comes from (true equity impact is at the backend, when investments are made).*
- Some focused on equity in the process
 - *Existing residents often hold historic influence in investment decisions, so residents who might be disproportionately affected by reducing or eliminating SDCs might not be at the table.*
 - *Some communities use standing or ad hoc committees to help in the SDC-setting process.*

Themes

Stakeholder Feedback

Increase in interest in/use of affordable housing waivers

- Several cities and service providers have waiver policies in place for regulated affordable housing and more jurisdictions reported considering waivers.
- But concerns about administration and enforcement for affordable housing waivers were raised.
 - In communities that have not implemented affordable housing waivers, staff sometimes expressed concerns about monitoring and enforcement over time:
 - How to guarantee that rents stay low?
 - What happens if owner changes rents? If rents do change to market-rate, is there a way to get SDC payment?
 - Major administrative tracking concerns.
- Most service providers that offer SDC waivers for affordable housing limit it to regulated / income-restricted affordable housing.
 - *Some use a deed restriction that requires them to pay back the SDCs if the property does not remain affordable.*
 - *Some noted waivers have increased admin costs because they must review for eligibility, other said it was minimal.*

Concerns about implications of foregone revenue from eliminating or reducing SDCs for affordable housing

- Some do not feel it is fair (or, in some cases, legal) to waive fees for affordable housing.
 - *SDCs are charged based on infrastructure needs, and affordable housing still creates an impact on infrastructure.*
- Some cities and service providers have set a cap on the amount of waivers they will issue.
- Many raised questions about where replacement funding would come from.
 - *When SDCs are waived on certain projects, the revenue will need to come from other sources so projects can be built.*
 - *User fees or general funds may be used to backfill whatever SDCs are waived.*
 - *Want to know that if SDCs are reduced or eliminated, how can they ensure investments are made in lower income areas?*
 - *If there was a policy to waive, would have to be a policy to backfill—that money has to come from somewhere. What do you backfill it with is the question, not whether to backfill.*
 - *Concerned that State will require SDCs be waived or reduced for certain types of development projects. If this becomes the case, state funding should be provided to help backfill.*

Themes

Stakeholder Feedback

Timing

Most jurisdictions collect SDCs at building permit issuance, but some offer flexibility

- Jurisdictions offering deferral to certificate of occupancy (C of O) often do so selectively, but each jurisdiction is different in their approach and criteria.
 - Water SDCs are sometimes linked to meter placement, which typically occurs about 3/4 of the way through finishing the house, before C of O, but after BP (usually). Have leverage because the meter needs to be installed. Several indicated they won't install the meter if SDCs haven't been paid.

Concerns about administering deferrals

- Administratively, it's easiest for jurisdictions to collect at building permit.
 - Easier to collect SDCs with Building Permit when applicant is already paying permit fee - more efficient.
 - When fees are not collected all at once, funding streams become disconnected and project execution can become uncertain.
- At Certificate of Occupancy, service providers still have some leverage, though there were differing opinions about this.
 - Some said certificate of occupancy is fine, since there's still a lever the jurisdiction has control over.
 - Some cities expressed that once permits are issued, they can't hold up C of O for any unmet conditions or unpaid fees.
 - *Pretty common opinion from building officials – if don't get fee up front, no hammer to collect any more.*
 - *Permitting system wouldn't allow carrying a balance – can't call for inspection.*
- Many service providers are concerned about nonpayment and being in a difficult position with deferral to C of O. For example:
 - *If ready for final inspection, ready to close and move in, and SDC payment holds it up, would look like City holding up final inspection. Creates perception issue.*
- Single-family development can be more challenging for deferrals.
 - *SF permits all come in individually. Would have to monitor and track every unit individually.*

Themes

Stakeholder Feedback

- *For a subdivision phased in over time can deferral create delays in implementing improvements.*
- Collecting at time of sale is especially concerning
 - *Rental properties are not sold, there's no trigger in place to collect SDCs*
 - *Large scale planned development that might be built out over several years with piecemeal sales, might not allow for SDCs to be collected in a timely manner.*
 - *Since cities are not involved in the sale of a property, there may be no trigger in place for collection (years down the road) and fees may never get paid.*
 - *Concerned about level of effort and staff time to track and make sure it happens.*
 - *City has no connection to sale, no involvement. Unless appropriately recorded—have to rely on someone else to trigger it, no guarantee it will show up.*

Most service providers are not affected by a small delay in receiving funds, but there are a few cases where timing is more important

- Most service providers are not utilizing SDC revenues for projects within the same year and would generally not be greatly affected by a 6 or 12-month delay in collections. Projects are usually planned out several years through the CIP with current revenues funding projects in later years.
- For new parks in master planned areas, timing of SDC collection is important, especially for land acquisition, since this needs to occur prior to development. Timing for developing the park land is less critical. Having parks and playgrounds before first homes come up isn't necessarily as important. However, others felt that people expect park and rec facilities when they move in.
- In some cases, utility impacts are immediate (e.g., water use during construction).
- Some service providers use SDCs to pay debt service on previously built projects and expend it in the year it is received.

Transparency

Basic ORS requirements are not a problem for most agencies

- Most provide some info online, but amount and type vary.
 - Methodologies, project lists, fee schedules posted on website.
 - Funding can be tracked in budgets, CIP, and annual reports.
- Some charge small administrative charges to recover a portion of the compliance requirements and include a part of master planning costs on the project list.

Themes

Stakeholder Feedback

Additional simpler explanations of SDCs are common

- Cities that only post their methodology online without providing more user-friendly materials for community members to navigate the methodology can create confusion and tie up staff time with fielding questions.
- Many communities have at least a brief explanation online.
- Larger agencies have staff dedicated to SDC program, so can provide more tools, such as
 - Dedicated webpage
 - SDC calculators
 - Transportation SDC video
 - Historical SDC tracking and comparisons
 - FAQs
 - Mail CIP reports to citizens
 - Training of front counter staff key to communication/understanding
 - Public info campaign for projects that are funded with SDCs - want people to see how being used
- Some smaller service providers noted that simple explainers from the state that explain what SDCs are would be helpful.

Providing information on SDC expenditures is more complex

- Would have been concerned if had to clearly show what SDC are paying for specifically.
 - *Gets complicated when multiple revenue sources are applied due to mix of project components (growth and maintenance).*
 - Small communities report it would be difficult to track at a subsystem (neighborhood) level.
 - *There is a lack of tracking where new dwelling units are being constructed relative to where funding is being spent.*

Appendix B. Summary of Input from Developers

Contributors: ECONorthwest

ECONorthwest conducted seven interviews and focus groups with market rate and affordable housing developers and home builders to gather insights on how SDCs affected developers' choices and development outcomes.

Discussion Topics

While the interviews and focus groups varied depending on the developers' experience and expertise, the range of topics addressed in these conversations included:

1. How do SDCs affect your development decisions? Can you give examples of times when SDCs affected and or all of the following:
 - Land negotiations
 - Walking away from a potential project
 - Changing what you would build / target price point
2. How does the impact of SDCs on housing vary across different geographic areas?
3. What are the implications of the timing of when SDCs are due within the development process?
4. How important are the following factors related to SDCs:
 - amount of the SDC relative to the strength of the local housing market;
 - amount of the SDC compared to other similar communities;
 - how the SDCs are used, and being able to see clear value from the SDCs; and
 - certainty about how much the final SDC cost will be.
5. Are there jurisdictions that you think are good models to look to for mitigating impacts of SDCs on housing?

Companies Represented

Metropolitan Land Group	Killian Pacific	Seven Peaks Homes
Polygon Northwest / Taylor Morrison	Stoel Rives, LLP	Stonebridge Homes
Pacific Crest Real Estate	Hearthstone Homes	Venture Properties
CDC Management	Cornerstone Community Housing	Hayden Homes
Hi-Valley Development	NW Housing Alternatives	Goodwell Construction
Arbor South		
Columbia Gorge Capital		

Summary of Stakeholder Feedback and Themes

Themes and stakeholder feedback from the interviews and focus groups are summarized on the following pages by topic.

Do SDCs Affect Development Decisions?

SDCs are part of underwriting and decision-making, as one of many costs that developers consider

- Most developers, report that SDCs are included as a line item in the proforma as a development cost. Some identified SDCs as a **major** cost category, along with land costs, hard costs, and off-site improvements.
 - *Moves the needle for cost of housing across the board, combined with everything else.*
 - *Not only SDCs. One of the biggest costs though.*
 - *Have decided not to do maybe \$20m of work because of how SDCs skewed proforma.*

How SDCs Can Affect Feasibility of Projects

In some cases, SDCs are enough to make a project infeasible, especially for very cost sensitive housing types

- Entry-level homes are often cost-sensitive because of the need to keep sale prices down.
 - *Worked for a homebuilder that did entry-level homes for first-time buyers and it was a burden.*
 - *SDCs are \$35-36k on an entry-level house. Sale price needs to be about another \$45k just to break even.*
 - *Try to build a home and SDC fees are almost \$30k before building permits. Would have to build something that nobody can afford. (Small coastal community)*
 - *If just barely pencils and SDC rates go up, they walk away if it's entry-level. In the middle adjust up or down, at bottom it's go/no-go.*
- Middle housing (attached product) tends to be cost-sensitive because it can cost more to build than a single-family home and sells for less relative to a single-family dwelling, but SDCs are not proportionately lower.
 - *Jurisdictions often have just a multifamily and single-family SDC rate so middle housing doesn't get the same discount as you would for larger multifamily. Some SDC rates differentiate based on square footage, but those often don't have a substantial discount and other SDCs don't vary in the same way so SDC rates don't change that much.*
 - *Had a half-acre of land on hold in [medium-sized mid-Willamette Valley city], waiting for HB 2001, but when they got the estimate back for SDCs for the 12-unit project it was about \$200,000*

(just for building SDCs). Doesn't include utility costs. Means 20 percent of unit costs going to soft costs outside of architecture & engineering. Considering bailing on it.

- *It's a hard sell to propose middle housing when single family performs better. SDCs make up a larger percentage of the sale price for middle housing so they perform even worse.*
- Multifamily can also be affected by high SDCs when rents won't cover the costs.
 - *SDC fees (plus other local fees, including building permit) made it prohibitive to underwrite project. Were about \$40k per unit, and those areas had been more like \$20-30k historically. If the fees for that area were lower, it would still have been questionable, but would have helped.*
 - *24-unit project in [medium-sized mid-Willamette Valley city]. If it costs more than about \$15k per unit, it gets tough. Now getting closer to \$20k per unit.*
 - *12-unit project in [small city]. Did some napkin math, got SDC numbers from City up front and said wouldn't work period. Didn't bother refining project. With SDCs in normal range would have been tight anyway.*

Lower SDCs aren't always enough to make an infeasible project feasible

- When projects don't work, it's often about more than just SDCs—construction costs and market conditions are big drivers.
 - *If it doesn't pencil out, there are probably multiple drivers, not just SDCs.*
 - *Construction costs have gone up from around \$200/sf. Now coming in around \$250/sf. Not SDC related, just market right now.*
 - *Deal-killer now is supply, labor, construction costs. SDCs have become a smaller factor.*
 - *If a community doesn't have reliable growth, reliable rents won't get near it.*
- Lower-cost housing types tend to face obstacles beyond SDCs.
 - *ADUs are super expensive to build per SF basis and the return on them doesn't align.*
 - *For middle housing, you're putting a product on a site that would otherwise have a single-family home on it. Lenders always compare to what else could be built there. Have to justify that it performs better than single-family dwelling, but middle housing often doesn't. Attached product depending on market particulars can cost 20 percent more to build than a single-family home (more complex to build) and dramatically undersells relative to a single-family dwelling (30-50 percent of a sf dwelling).*
 - *Larger homes often perform better than smaller ones. Incentive is to build the largest marketable product on the lot.*

Themes

Stakeholder Feedback

Where SDCs are low relative to other costs, they have little impact on projects

- When a jurisdiction's fees are low, they may not be a source of concern.
 - SDCs [for duplexes in a small coastal city] *were about \$6,000 per unit, that amount just doesn't move needle too much because rent growth in area is so high and the SDCs were low. Not significant relative to overall budget cost.*
- Residential adaptive reuse projects can have low SDCs compared to new construction.
 - *Adaptive reuse of a former senior care center that was 70 rooms, which resulted in a reduced fixture count (ended up with about 56 units after completed). Resulted in less than 50k in SDCs on that project, less than 1k per unit.*
- SDCs are not typically an important factor for high end housing types, such as custom homes.
 - *SDCs are just one other fee on a several-million-dollar house, just a small component. Not that important to their business model.*
 - *Property owner typically pays the SDC for custom homes.*
 - *The bigger the home, the less impactful the SDCs are on the construction of the unit.*
 - *For a second home or custom home it is what it is - nonissue.*
 - *If high end subdivision and there's enough price elasticity it's part of the cost of doing business.*

How SDCs Can Affect the Type or Scale of Housing Developers Build

In many cases, SDCs are not a factor in determining what a given developer will build.

- Developers tend to specialize in certain types and forms of housing.
 - *Try to build relatively the same types of plans. Pretty standard finish, build all Earth Advantage houses. Everyone wants granite counter tops.*
 - *Always build multifamily, not single-family or townhomes.*
 - *Strictly infill builder, 99 percent in [one large jurisdiction].*
 - *Custom homebuilder, mostly higher-end.*
 - *Target to 80-120 percent AMI projects with mission-centric landowners because land is the largest frontload on the cost. Often work with legacy employers. No lease-up, stabilized at occupancy, saves money.*

- Product is usually based on what aligns with the market. Many wouldn't change what they build just because of SDCs. This is particularly true for multifamily, given that SDCs are often not known up front.
 - *Trying to get the right combination of unit sizes for the market and pricing. Designing and building to what works for the market and sense of place and what city wants it to look like. Then come up with final product. SDCs aren't last calculated but not first either.*
 - *When underwriting a project, if we know a market, know what finishes make sense for the market - that goes into the hard cost budget. We let the general contractor know what finishes we're targeting. When we run the proforma if all doesn't pencil out it just doesn't work.*
 - *Wouldn't change from entry-level to market because of SDCs, would deliver what's best for the market regardless of SDCs.*
 - *There are a lot more components than SDCs that go into deciding the form of multifamily.*

Sometimes developers will adjust unit size in response to SDCs and other costs.

- SDCs combined with high land costs sometimes push developers to build bigger, more expensive homes to cover the costs. This is particularly true for single-family homes where SDCs are more predictable in advance.
 - *If can't make [SDC exemption program] work could be 1700 sf house to get to higher sales price that makes the numbers work. Currently building 3 houses in a neighborhood that's nicer, know they won't be under price cap [for SDC exemption]. Had to build 1800 sf house to justify higher sales price and afford SDCs. End up building bigger more expensive house to cover the cost.*
 - *SDCs aren't really stopping things in [large Metro-area city] - pushing houses to be larger and more expensive.*
- Other developers may build smaller units to cut costs while keeping pricing aligned with the market.
 - *One area had lots of expensive requirements and high fees. Can only charge so much for a house, still have to the price house to be competitive. Think those units might be smaller, higher cost for those features. Typically get a smaller lot, maybe a smaller house but it's new.*
 - *Will change product offering, shrink product to what people will be able to pay. But will the market accept that?*
 - *Have seen house sizes reduced to counter-act increasing costs.*

Themes

Stakeholder Feedback

Sometimes when the difference in SDCs is based on product type or scale is substantial, developers will choose the option with the substantially lower SDCs

- *For lower sales price, go for a smaller house. Might have to build a 1300 sf house.*
- In some instances, if SDCs are waived for homes that sell to income-qualified buyer (below 120 percent AMI), market-rate developers will build a lower-cost home to qualify.
 - *When working with the SDC waiver program, homes are priced at \$430k to qualified buyer, \$475k to nonqualified buyer. If SDC-qualified buyer, get the discount. Sold 3 to SDC-qualified buyer, 2 to nonqualified. Like to sell at lower price point, but a wash either way.*
- When SDCs are much lower for small units, this can have a big impact on some projects.
 - *Were able to take advantage of building cottage homes, reduced SDC fees. City figured that cluster code allowed them to put 4 units on one lot, and were only going to get one SDC if put a larger home there, justified that still covering the impact of one larger home. Could build up to 4 units, 1 SDC divided by 4. Were able to do 4 for-sale units, hadn't been an option before. Small fee for hook-up, but not the full \$35-40k.*

Other times, when SDC differences are minor, they are not enough to change the unit size or other features.

- Scaled SDCs that do not vary substantially have less impact on what will get built.
 - *In [one medium-sized mid-Willamette Valley city], City was reviewing parks fees as well as transportation and water fees. Had asked them to think about a tiered study, because of HB 2001 regulations. There was a push by Council to ask staff to do it. Took about 18 months to come back with recommendation, tiered. It's a little different from [other tiered approaches]. Based on Census data—average square footage that are being permitted. Reduced amount on smaller square footage, increased on larger. But doesn't get to where you need to be—not aggressive enough to make it work. When look at fixed cost of what it takes—land, building costs, SDCs, won't be able to get cost down enough to meet area median income.*

How SDCs Affect Housing Prices & Rents

The market determines what prices/rents are possible, but SDCs can influence whether developers need to

- In a supply-constrained environment when other costs are inflexible, builders may try to push sales prices to recoup at least some of the costs.
 - *If there's lack of supply of land and SDCs are fixed and costs are pretty fixed, have to sell the house for more—there's not much else that can move. Seems like demand is strong enough relative to supply that builders feel like they can push the market.*

Themes

Stakeholder Feedback

push the upper limits or not

- *Cost typically goes down to buyer on for-sale products, which causes the buyer's buying power to go down. If house was supposed to be \$350k and city fees were \$60k per home, that does get passed on. Maybe have to increase to \$375k.*
- Multifamily developers generally indicated they have limited ability to push rents, unless rents are already increasing anyway.
 - *Can't raise rents just to raise rents.*
 - *Unsure if will need to increase rents—don't want to be uncompetitive in pricing. Could lead to longer lease up, might not hit the numbers.*
 - *Trying to get numbers down to make it work with market rents.*
 - *Fees increased for parks district during development. Pandemic helped because rents went through the roof—allowed them to pass through the costs. Otherwise probably would have been on pause until rents went up.*

How SDCs Can Affect Land Prices & Negotiations

SDCs affect land negotiations and what developers are willing to pay in some cases

- SDCs are one of the factors that impact what landowners and land developers can sell finished lots for, as part of the builder's overall proforma.
 - *Trying to keep SDCs down generally speaking—keeps land values higher as a seller of land.*
 - *Developers come back on the land, that's where the haggling is. But in a supply-constrained development, their business requires land, so maybe they can push on subs or see what else can give.*
 - *If one jurisdiction charging \$30k, another is charging \$75k that goes into the formula. Either try to pay less for land or know that will have to sell homes for more.*
 - *For any deal that works, they have successfully addressed the impact fees as part of purchase price (for the land).*
- There are times where a seller's expectation on the price of land and high SDC costs have kept projects from moving forward because seller won't take a lower price. This can be particularly true when land costs are already low and there is limited room to absorb SDC costs by lowering the land price.

Themes

Stakeholder Feedback

- *Expectation from seller that land would sell for similar price of recently sold parcel next door (parcel next-door zoned for single-family units, whereas this one required attached housing, no single family). This particular city had higher SDCs relative to neighboring jurisdictions (new growth area), so could only offer about 35 percent of what the seller was looking for. SDCs were baked into the proposed purchase price and so if they could have come to a deal, the SDCs would have been pushed onto the landowner because they couldn't be baked into the attached product.*
- *SDCs were a factor in not being able to come to an agreement on land price*
- *Have passed on projects in [large Metro-area city], and properties that are still for sale where couldn't make the numbers work. Some land people just won't sell if they're not going to make enough.*
- *Could pay SDCs but landowner needs to take less money—tried to negotiate but would've been \$100k on a \$300k property.*

Other times, land prices or negotiations do not play a role

- Some developers build on land that has been held for a long time, and land price negotiations aren't a factor.
 - *Already own everything they will develop, not in an acquisitions mode to develop projects.*
- Some developers are strictly infill builders, so they do not do any large land acquisitions.
 - *Not much land acquisition negotiation, mostly buying older homes and demo or keep and add to it.*

How SDCs Can Affect Where Development Occurs

SDCs can make developers choose one area over another in some instances

- Many developers and builders report that land costs and SDCs are differentials when considering what adjacent jurisdiction to build in. When SDC costs are out of line with market conditions, developers may look elsewhere.
 - *In some communities SDCs have been part of decision—don't look at [one jurisdiction] because of some of the SDCs there.*
 - *Particularly an issue in older cities that have a lot of infrastructure costs that need to be funded. May pay \$500k in SDCs and still have to replace utility lines.*
 - *Won't build in [certain small towns] - too expensive. Build in places that have more reasonable SDC fees.*

- If there are other options in the area with lower SDC costs and comparable market conditions and land costs, developers may choose those areas instead.
 - *If SDC fees are \$30k less somewhere (but markets are similar) will just go somewhere else. For market-rate apartments almost the same. If can only do a certain number of deals, would choose the lower-cost one (all else equal).*
 - *There are markets where rents or sales prices are similar — closer to urban usually higher, lower further out. Similar housing markets, similar drive to core. Even with state income tax differences, it was similar. There are markets where could get similar pricing with lower fees.*
- Others said SDCs would generally not be enough for them to choose a different community to build in.
 - *Nearby communities are smaller, don't have diversified economies. Generally wouldn't consider building there. SDC difference would have to be a lot.*
 - *Not so concerned about that [comparison to other jurisdictions]. All have different priorities, respect that.*
 - *Affects willingness to build in a given community, but not the only factor.*

Other jurisdiction-specific factors can have a bigger impact than SDCs on where developers want to build.

- In some instances, developers and builders said there were other costs that were more important factors than SDCs, including permitting speed, ease of communicating with and getting clarity from staff, and zoning regulations.
 - *If paying more in SDCs could equate to permit speed and consistency/more predictable way then that might make a difference. Build SDCs into proforma and they are predictable, but the permitting speed is more of an unknown.*
 - *Very different permitting and SDC experience [between two small towns]. In one, permitting is great, super fast: 5 weeks from plans to permits issued. Can call directly, very responsive. But a lot of coastal cities have issues with retaining staff for city departments — people move on to bigger communities after a few years. Hard to get timely responses to any questions — planning, land use, permitting, or clear info from Public Works.*
 - *One new growth area had a whole other level of requirements on single-family home developers - specific architectural design guidelines, sustainability requirements that all put a burden on the developer. And municipal fees were high.*

- *When you get better service overall, it feels like city is working with you, but in other communities it feels like they don't care if your project happens. It makes a difference. Time savings from a more streamlined process can make up for some of the SDC cost.*
-
- Ability to charge high SDCs varies by size of community and market demand
- Many developers noted that small towns are more sensitive to SDC costs.
 - *Should ideally be some sensitivity that smaller communities won't be able to absorb big SDC fees. More impact in smaller communities. Maybe can pass along in larger communities — maybe a little more expensive than wanted it to be. Almost like gas prices.*
 - *Smaller fees can make a big difference in a small town.*
 - *Less room for error, less variability in cost in emerging markets. Any cost increases would put more strain on the project. Less flexibility to maneuver.*
 - *In other parts of the state [outside the Portland region], price points are lower that you can sell homes for. Jurisdictions have a harder time raising SDCs, haven't seen them as aggressive as they are in Portland region. Market is softer. Not pushing as hard on the amenity side as Portland metro jurisdictions — that keeps costs down.*
 - Affluent and high-demand, supply-constrained communities may be able to charge higher SDCs.
 - *Small affluent jurisdiction in Portland Metro region, strong market, strong school system. SDCs are considerably higher than other jurisdictions. Higher SDCs tend to correlate with communities that are more difficult to work in and more affluent communities.*
 - *An area with higher income might be able to afford a higher SDC package than a [medium-sized mid-Willamette Valley city].*
 - *Portland metro jurisdictions know that developers have less options, think they can pay more.*
 - *[SDCs for one greenfield development project in the Portland metro region] were highly negotiated with City and 3 primary developers. They had kind of a line in the sand on how high they could go. Knew what product mix they were anticipating. They intended to have some executive housing — street of dreams, job proximity, golf course proximity. Were banking on being able to charge a premium for new community with parks, schools, amenities. Had come up with a mix of products that would allow them to absorb some cost.*

Whether Developers & Investors Accept Lower Returns When SDCs Are Higher

Developers can rarely move a project forward that doesn't meet investor and lender return expectations just because SDCs are higher, but sometimes project-specific circumstances can mean the developer absorbs a portion of the cost.

- Pro forma needs to work before moving forward (noted above). Lenders and investors have their requirements / expectations.
 - *Work the proforma backwards. Think they can get X in rent for the units. If they build this many units with those rents, what is NOI [net operating income]. Have to make 6.5 percent return on investment or won't loan on it—if can't hit that they walk away. If developer puts \$1m in, they want to make sure they are getting a return on that.*
 - *Buyers [of finished lots] generally build a proforma on all the costs of building a home for sale, look at what their margins need to be—usually deal with national homebuilders. They look at what SDCs are going to be.*
- Very rarely, for a major development, investors may intentionally accept lower returns in some phases if later phases will make up for the lower returns.
 - *Did an apartment complex in [a master planned area]. Fees were a burden on the project. Developer was tied into the equity investors in the overall development. They were asked by the equity partner to do the deal with lower returns to be the first in. Couldn't negotiate on land to make it lower, couldn't raise rents, so took lower returns on the investment. Didn't meet company requirements, but equity partner needed the master plan to get up and going to get homebuilders to sign contracts. Would not have done that deal otherwise. Was kind of a loss leader.*
- Developers that hold projects long-term in areas with strong market conditions may be able to pay more up front and still achieve returns over the longer-term.
 - *Depends on who's building the project—20-year hold vs. 5-year hold and sell to institutional equity. Different metrics. Longer view can afford to amortize costs over a longer basis.*
- Once budgets and financing are locked in, changes to SDCs or other fees can affect financial returns based on how much contingency is needed
 - *Build in escalation into municipal fees. Sometimes they don't go up and it's a win. Other times they go up more and do the best they can.*

How SDCs Can Affect Affordable Housing Developments

SDCs have to be covered by the combination of rents (limited based on incomes) and other sources of funds that help make the project feasible.

- When SDC costs are known early, they can be incorporated into funding applications.
 - *Have to know costs early and with precision before you get your funding, especially if not using a conventional lender.*
 - *When applied for funding had about \$80k plugged in for SDCs after conversation with Public Works —rough math.*
- For Low Income Housing Tax Credit (LIHTC) projects, the tax credit equity covers a share of the SDC costs when financing closes (project completion), but not all.
 - *4 percent LIHTC—getting about 36 cents back on the dollar—some offset for basis eligible costs. Get about 1/3rd of it back. Doesn't make you whole but helps a little.*

SDC waivers can make a substantial difference to affordable housing developments, but they can also introduce complexity.

- Waived SDCs or exemptions can help close funding gaps.
 - *Had a site for affordable housing development. Original developer couldn't make it work because infrastructure costs were so expensive, including Parks portion of the site. City was trying to come up with an alternative. Reduced number of affordable units, but the only reason they could make it work was because SDC fees were waived or reduced for affordable units.*
 - *Saved almost 900k in SDCs on a 140-unit project. Huge savings.*
- Requirements from the jurisdictions for qualifying projects can be challenging to meet.
 - *City wants to see a 99-year cash flow projection and you're agreeing to a 99-year affordability covenant that runs with the land. City wants to be in top lien position—they were negotiating with OHCS and the permanent lender for position. Some lenders are flexible, others would walk away before giving up first lien position. The end result is good, but the mechanics are problem. Probably cost another \$50k in lawyer fees.*

Certainty on SDCs is particularly important for affordable housing development.

- When SDC costs increase unexpectedly, it can be very hard to find additional funding or cost-savings in other areas at the last minute when funding amounts have been set in advance.
 - *On one project, spent about 3 months with architects and engineers to try to get an SDC fee estimate. No one at the City was willing to have back of napkin conversation. Needed to be ready to issue building permits to calculate the SDC fee. Had SDC fee calculator online, but those are always wrong,*

often by a lot, even if you get an engineer involved. Staff was difficult to get ahold of—had a line in the proforma from a conversation a year and a half ago where someone gave a rough guess, which ended up being \$150k short. Had to take it out of the building. Then a week from closing got a note from Public Works that said they needed another permit that was another \$5k that they hadn't planned on. Can't weather those types of surprise costs today. Had to make hard decisions—playground equipment cost cut, landscaping, and site amenities cut. When get close to closing and have been doing everything to keep construction scope in place things are down to very fine margins. At one point almost had to eliminate a floor to make the budget work.

How SDCs Timing of Payment Can Affect Development

Paying SDCs at building permit increases financing costs and impacts availability of capital

- When SDCs are financed on a construction loan, the developer has to carry interest on that cost throughout the whole development process, so it increases the overall cost of SDCs.
 - *Often pay out of construction loan. Would be nice not to have to add hundreds of thousands to construction loan on day 1, especially with interest rates rising. Have to carry SDC fee debt.*
 - *\$40k in SDCs could become \$50k with construction interest.*
 - *If include with bank loan on the very front end, might take 6 months to completion plus time to sell, could be 9 months interest.*
 - *Payment at final inspection—a big cost-saver. Pay a set amount on any payment of fees. Savings there is very beneficial. Essentially lowers the cost of the SDC. Have to make fee payment before they'll send an inspector out.*
- Developers of multifamily projects may have higher carrying costs due to longer development periods.
 - *Should be due at certificate of occupancy instead of permit, especially if 100+ unit multifamily or large industrial project—it's a lot to carry for the development. An 8 percent construction loan for 24 months on \$600k SDC fee = \$48k in interest. [market-rate multifamily developer]*
 - *It's just cash flow—when money is coming in. Typically don't get a construction loan until have the building permit. To get the building permit have to pay the SDC. Can be 2 years before delivering the product. If can offset for a few years, it helps with cash flow. [market-rate multifamily developer]*

Themes

Stakeholder Feedback

- *Not cheap to service debt on something that large that early in a project. [affordable multifamily developer]*
 - Paying SDCs before construction takes away from the resources available to pay for pre-construction work and early stages such as site preparation.
 - *If use cash on hand, if its \$35k per house, could be \$700k in SDCs—reduces working capital to build more units.*
 - *Allows putting that money to other parts of the project, e.g. early buy-outs for construction, getting sitework done early—allows getting started on construction before construction loan is in place. First draw is typically like \$2m. Instead of paying those fees can get construction started.*
 - *Developers are putting in a lot more cash up front, loans are decreasing (e.g. 60 percent) so might be just equity contribution before construction loan kicks in. Would rather put up-front costs to something more tangible.*
-
- Not all developers agree that deferring to Certificate of Occupancy is helpful
 - Some developers are indifferent to when they pay the SDC cost, since they have to pay it eventually.
 - *If it's a \$100m project and will have \$60m construction loan, nothing says SDC fees have to go in construction loan. Financing same amount either way.*
 - *Deferrals haven't made sense—just delaying the inevitable. Have to pay either way.*
-
- Some developers expressed a desire to defer SDCs past Certificate of Occupancy
 - Some builders noted that paying at time of sale would be preferable.
 - *If tie to occupancy—what happens if a small builder is over budget and don't have the funds, can't get final, can't pay the city. Could be a mess. At transfer of title, have the funds to pay it off.*
 - *For build to sell, payable at closing, or at least at C of O so not paying interest on the SDC.*
 - For rental, some suggested delaying or financing for longer.
 - *Having SDCs payable upon stabilization for rental - equity bump when property is built and stabilized. Could be a lien that gets attached to the property to pay once stabilized.*
-
- Timing of payment vs. timing of impact matters to some developers
 - Some developers feel that paying later is more appropriate based on when SDCs are used or when impacts occur.
 - *Cost for essentially nothing—they're designed to offset impacts to systems but impact doesn't start until there's a buyer.*

- Jurisdictions (especially large ones) don't need those dollars for a long time.
- Think should be later—at occupancy. Should be tied to when the impact starts.

How Important Certainty/Predictability in SDC Costs is to Developers

Many developers highlighted the importance of knowing how much the SDCs would be in advance.

- Several developers noted issues with major changes to SDCs during the pre-development and development period. Some set money aside specifically to address fee increases, but there are fewer options to adjust to cost-increases that occur later in the development process.
 - *Update fees in April/May, check in with cities on whether and how much they're going up. Occasionally there can be significant changes. But none have ever caused backing out of a deal, just reforecast and reallocating costs. Also carry a municipal fee contingency—pull from that. Try to avoid using soft-cost contingency.*
 - *Relied on numbers from city that accounted for SDC credit. When had final approvals to HUD and couldn't change it got a letter that they ran out of credits. Had baked SDCs into proforma for construction loan for HUD. Immediate hit to contingency before starting.*
- Estimating fees is typically more challenging for multifamily development.
 - *Typically find out SDCs later in the process on the multifamily side. When you have your unit mix, then you have the parking ratio, then figure out impervious surface, trying to make it fit and make numbers work at the same time. Can be 6-12 months into project before you know that, and you can't get a great estimate of SDCs before that.*
 - *Certainty is important to developers—timing, amount, etc. [multifamily developer]*

How Important the Usage of SDCs is to Developers

Many developers see value in the infrastructure that SDCs fund.

- Parks and lack of traffic congestion were identified as factors that particularly offer benefits for housing demand, which supports development.
 - *Parks are necessary, great amenity for dense urban projects*

Themes

Stakeholder Feedback

- *Developers like parks, trees, open spaces. If they can see that a community is proactively spending in a beneficial way, it would be a more beneficial offering for housing. If people can see that have the amenities and open space, services, lack of traffic congestion, they will make their decision.*
- *Projects need to be done. They're necessary. But existing residents aren't paying today's prices for the infrastructure they have.*
- Some developers noted the importance of funding needed infrastructure to allow development to move forward.
 - *The biggest benefit of SDCs in Oregon is that they provide a mechanism so jurisdictions can't place moratoriums on development. In other parts of the Country, if they don't have infrastructure and don't have SDCs in place, you end up with moratoriums and can't get things built.*

Developers like to know that SDCs are being put to good use generally, and many would like more transparency about how funds are being used.

- Many placed value on accountability and transparency generally.
 - *Important to see the benefit. Any taxpayer or investor wants to see where their money is going. Goes to government accountability.*
 - *Don't look at what they get for each penny, but do look at governance quality, SDCs are part of that. How much crumbling infrastructure, will there be population flight because tax burden too high or services are poor. Look for great long-term governance.*
 - *Care about overall business environment. What is city charging and how is it being used.*
- Some would like to see a more direct and tangible connection between the SDCs paid and the projects they build.
 - *People should know where the dollars are working for them, and may be more willing to pay if they're presented with a project list of where the money will be spent. The area where the money is generated should see the investment.*
- Some pointed out that the way SDCs are used varies between infill and suburban contexts, and that suburban projects can be more visible.
 - *Don't build in [suburban Portland region community], but hear from other builders that they feel like they're getting value for their parks SDCs—they use the funds. [Urban jurisdiction] can't go out and build new parks, they use funds mostly to increase parks capacity (e.g. converting grass field to turf with lights to increase how much of the time it can be used). In more suburban jurisdictions you can see them using the funds.*

- *In [urban jurisdiction] you rarely see something close that's a direct impact funded by SDCs. Mostly larger capital projects (e.g. major roads). Wish they would put up signs saying "this was paid by X."*
 - Some developers expressed concern that projects included in SDCs may not get built.
 - *Park fees are challenging because they vary so widely. Sometimes they encompass projects that are unlikely to get built but inflate the fees. No requirement that what they put in the plans actually gets built.*
 - *Have experienced where collecting SDCs for parks but not being used because couldn't afford to maintain them, do the construction, etc.*
 - *Looking at a small community—high parks SDC but talking about decommissioning parks. Where are fees going?*
 - Some expressed particular concerns about paying for administrative costs.
 - *In informal conversations some have had with city staff, staff say a lot of the SDCs go to admin costs for things like benefits and personnel.*
 - *Are the admin charges really proportional to the service/mechanics received?*
-
- SDC credit policy is as important to some developers as the SDC rate.
- Developers generally like being able to get SDC credits for building needed infrastructure.
 - *Love it when can take advantage—it's a win / win. Jurisdiction gets infrastructure built at lower cost than if they had to build it. Not money directly coming out of their coffers. Developer gets localized benefit rather than SDCs going to a project that might be across town. Helps if a needed improvement might not be proportional to the project.*
 - Some noted that the credit-eligible portion of infrastructure improvement costs can be more ambiguous than the SDC fee itself.
 - *If projects are on-site or contiguous, only get credit for excess capacity—lots of negotiations on what that means. Often developer gets negotiated down a lot. More clarity on what that means would be helpful.*
 - *City is judge, jury, and executioner. They decide how credits work, what's oversizing, etc. Could sue in theory, but not going to do that. Devil is in the details. Time is money, want to get project done.*
 - *Having to put in a park within a certain distance—city may require that but not getting credit for putting in those parks.*

- Some said financing cost reduces the value of the credits, particularly if developers are required to pay SDCs and be reimbursed for credit-eligible portion of improvements.
 - *Had an experience where developer was building infrastructure that will earn them credits, but at the same time as the project. Had to pay SDCs and then reimburse at the end — city wanted the money for free, still wanted to charge interest to defer the SDCs.*
 - *Deferred because getting credit for significant off-site improvements. Instead of paying fees and then City paying the developer back, defer and reconcile at the end.*
 - *People sometimes think it's 1:1, but builder has to finance it, carrying costs can erode the value of the credit.*
- Some noted that provisions allowing transfer of SDC credits are helpful so that developers can get the full benefit of the credit.
 - *Have successfully received credits and sold to other developers.*
- *[One large city] made SDC credits not transferrable to other projects, imposed limits geographically. Think that's a mistake. That would further incentivize developers to take on larger improvements and could monetize by selling credits.*

Appendix C. Key Oregon SDC Court Cases

Contributors: Galardi Rothstein Group, FCS Group

The cases listed in this section are not an exhaustive list of Oregon case law, however, they highlight and provide clarity on some key issues associated with implementing an SDC program in Oregon.

Key Case: Home Builders Association (HBA) of Metropolitan Portland v. Tualatin Hills PRD

The Portland HBA brought suit against Tualatin Hills Park and Recreation District (District), essentially claiming that the park SDCs the District adopted constituted an illegal “taking.” The Oregon Court of Appeals ruled with the District in 2003 that its SDC met applicable tests of constitutionality as a quasi-legislative exaction. In its ruling, the Court reviewed the District’s methodology and stated the following:

Plaintiffs (HBA) do not suggest that the SDC is unrelated to the resolution’s stated objective of providing parks and recreational facilities, nor do they provide any argument, analysis, or information indicating that the amount of the fees that the resolution imposes is, as a matter of law, unreasonable or arbitrary. Such arguments would not be successful.

The Court further stated that “The SDC methodology here meets the ‘reasonable relationship’ standard. That being the case, it also meets, a fortiori, the Due Process ‘rational basis’ test.” The effect of this ruling was to clarify and affirm that a reasonable approach to proportionality would generally be upheld.

Key Case: Portland Metropolitan Association of Realtors, et al v. City of Portland, Multnomah County Circuit Court Case No. 15CV19696

The plaintiffs in this case brought suit against the City of Portland after adoption of a new (2015) park SDC methodology. The Portland Metropolitan Association of Realtors argued a number of points, with one found to have merit. In its project list, the city grouped planned projects into categories and noted the total category cost and SDC eligibility. In its ruling, the Court stated the following:

The sheer number of projects aggregated, and the loose descriptions do not provide sufficient evidence to demonstrate to the detail contemplated by the statutes.

The Court remanded the supporting project list to the city “for greater specificity in the costs, timing and percentage of costs eligible for SDCs for capital improvements needed to increase capacity.” This ruling provided additional clarity as to the level of detail required in an SDC project list, as delineated in ORS 223.309.

Another key outcome of the decision was upholding the city's methodology to change the level of service from a traditional acres of park land per 1000 people to current investment per person. As noted by the Court:

The level of service becomes the current investment per person in park land and improvements. What exists has been acquired for the use and benefit of the current population. With every new person added, the investment becomes diluted. Capital improvements return the investment to the existing level of service per person. In that sense, there is equilibrium, and the starting point remains static.

Key Case: Home Builders Association of Lane County, an Oregon Non-Profit Corporation, and Home Builders Construction Company, an Oregon Corporation v. City of Springfield, a Municipal Corporation and Metropolitan Wastewater Management Commission, Lane County Circuit Court Case No. 16-04-15534 and 16-04-15996

In June 2005, the Circuit Court of Lane County upheld a wastewater SDC methodology adopted by the Metropolitan Wastewater Management Commission of Eugene Springfield (MWMC) that was challenged by the Home Builders Association of Lane County. The methodology and project list were challenged on a variety of technical as well as procedural issues. Ultimately, the circuit court ruling upheld MWMC's SDC methodology and project list. Key issues highlighted in the decision included:

1. SDC statute requires that the SDC methodology provide a framework for imposition of SDCs but does not mandate a particular type of methodology.
2. In consideration of what determines an equitable and proportionate share of costs allocated to growth, the standard of review is substantial evidence and reliance on expert opinions and recommendations constitutes substantial evidence.

The SDC statute simply directs that the allocation of fees is done equitably and proportionately—concepts that are not rooted in any legal test but are dependent wholly upon the facts of a given situation. Given the purely factual nature of this assignment of error, it will be reviewed by this court under the substantial evidence standard (i.e., whether a reasonable person could accept the finding as adequate to support a conclusion)

3. Establishment of an SDC is not a land use decision and the statute does not require projects to be included in a land use plan prior to their inclusion on the SDC project list requirement by ORS 223.309.

Key Case: HBA of Metropolitan Portland v. City of West Linn (2003, 2006)

This matter first came to the Clackamas County Circuit Court as a Writ of Review, and the Court ruled that only one of their claims had merit. The City of West Linn was found to have included open space in its park inventory which did not qualify as parks and recreation facilities. The effect of the larger inventory was to increase the existing level of service provided by the city, and the resulting SDC. In 2003, the Court remanded the matter back to the city, which removed nonqualifying open space and recalculated the fee. The HBA appealed. In 2006, the Court of Appeals of the State of Oregon sided with the city, acknowledging that the city had fixed the only meritorious issue.

Key Case: COBA v. City of Redmond, Deschutes County Circuit Court Case No. 02-CV-0528 ST

The Central Oregon Builders Association (COBA) brought suit against the City of Redmond, claiming that the city had improperly modified its transportation SDC methodology because the City did not provide a 90-day notice to interested parties, as specified in ORS 223.304(6) and (7). In the judgment, the Court found that eliminating pass-by trips from the calculation was in fact a methodology change and that the City “did not provide notice to COBA at least 90 days prior to the first public hearing conducted to consider the transportation SDC as required.”

The suit and the resulting 2004 judgment served to elevate the importance of the noticing requirements in ORS 223.304.

Appendix D. Other Potential Infrastructure Funding Sources

State and Federal Funding Programs Available for Local Infrastructure Projects

There are many specific grant programs at the state and federal level that are available to fund certain types of local infrastructure projects. These generally fall into one of the following categories:

- **Discretionary grant programs** (e.g., Water Wastewater Fund and many federal grant programs²³²), which are allocated on a competitive basis and often require local matching funds.
- **Formula grant programs** (e.g., Community Development Block Grants), some of which are allocated to states or regions and distributed based on state or regional priorities (e.g., Congestion Mitigation and Air Quality Improvement Program).
- **Low-interest loans** and Revolving Loan Funds (e.g., Safe Drinking Water Revolving Loan Fund,²³³ U.S. Department of Transportation loan financing programs) that offer low-interest financing but are repaid by local sources over time.

Other Local or Regional Funding Mechanisms

Beyond SDCs, there are other funding mechanisms available at a local level that can contribute to funding infrastructure. Some derive funding from property taxes, others from user fees, specific developers/property owners, or broader economic activity. Not all of these options are equally viable, effective, or appropriate for funding infrastructure capital projects, and not all are available or suitable for every community. All have impacts on whichever entities are bearing the costs or competing for revenues, though the nature and extent of the impacts vary.

Property tax-based tools

These tools allocate property tax revenue to infrastructure, either by dedicating existing revenues or (in some cases) establishing additional dedicated taxes. Most apply across all properties within a particular jurisdiction or district.

Options to raise revenue through additional property taxes:

²³² For examples and details see https://www.fhwa.dot.gov/bipartisan-infrastructure-law/grant_programs.cfm.

²³³ For other federal water and wastewater grant and loan programs, see <https://www.epa.gov/waterfinancecenter/effective-funding-frameworks-water-infrastructure>.

- **General obligation bonds** increase property taxes throughout a jurisdiction or district over a long period of time (e.g., 20-30 years) to repay debt issued to fund capital projects and require voter approval.
- **Local option levies** also increase property taxes for up to 10 years (though they are subject to limitations on property taxes discussed in Section 2.1.3) and require voter approval.
- **Special districts** (e.g., the North Bethany County Service District for Roads, Tualatin Hills Parks and Recreation District) can establish their own tax rates to generate dedicated property tax revenue for infrastructure construction and/or maintenance within the district boundary but are subject to limitations on property taxes discussed in Section 2.1.3 and require voter approval.

Options to allocate existing tax revenue or revenue growth from increasing property value without increasing tax rates:

- **General fund²³⁴/property tax revenue allocation** (e.g., Washington County’s Major Streets Improvement Program) does not require new property tax revenue but competes with other local priorities and is subject to limitations on property taxes discussed in Section 2.1.3.
- **Urban Renewal/Tax Increment Financing** diverts property tax revenues from increases in assessed value inside a specific area for investment in capital projects that improve the area; it does not increase property taxes within the boundary but reduces revenue growth for existing taxing districts.

Development-Based Funding

Contributions from developers can take several forms, including:

- **Exactions** (improvements required as a condition of development approval), which can include on-site and/or off-site improvements. As discussed in Section 1.2.1, exactions are subject to constitutional limitations of rational nexus and rough proportionality.
- **Development agreements** or annexation agreements, which are generally voluntary, negotiated agreements between the jurisdiction and the developer that establish what each party will contribute and be responsible for.
- **Improvements in exchange for additional development rights** (e.g., planned development options that provide regulatory flexibility and/or additional density linked to providing public open space), which depend on there being demand for the additional development rights.

²³⁴ The general fund is technically not a funding mechanism, but an account that all local governments have, where a variety of unrestricted revenue sources are collected.

There are other mechanisms where project costs are paid up front by either a developer or the jurisdiction and recovered from subsequent development or property owners within a specific area that benefits from a specific improvement(s). Examples include:

- **Reimbursement districts** allow the jurisdiction or a developer to recoup a proportionate share of capital investments that benefit multiple properties from subsequent development on those properties.
- **Local improvement districts** (LIDs) establish a special assessment on properties within a defined area that benefit from a specific capital improvement based on their degree of benefit (rather than the value of the property); a majority of affected property owners must support formation of the district.

These are often used to fund projects with a geographically-defined benefit, but they may have limited revenue capacity, especially within smaller areas.

User-Based Funding

There are a number of fees and taxes that derive funding from specific users and activities related to the infrastructure systems themselves. Examples include:

- Broad-based user fees:
 - Utility rates (e.g., water and sewer rates)
 - System-wide user fees (e.g., monthly or annual charges for all residents and/or businesses or fees for use of specific facilities)
- Facility-specific use charges:
 - Parking fees (e.g., permit parking or metered on-street parking revenue)
 - Tolls
 - Facility rental fees

The allowed uses vary by the type of fee or tax, but some can be used for infrastructure funding in whole or in part. Utility rates are commonly used to fund infrastructure improvements for water and sewer, and other types of user fees are becoming more common—see discussion in Section 2.1.4.

Taxes and Fees on Economic Activity

Taxes and fees on economic activity that is relevant to a given infrastructure system (e.g., transportation) can sometimes provide funding to support infrastructure investments. Examples include:

- Franchise fees (fees on utility company/service providers for use of public rights-of-way)
- Fuel (or gas) taxes
- Vehicle registration fees (county level)

Taxes and user fees unrelated to infrastructure can also sometimes generate revenue that can be used flexibly (at least in part) and can be applied to infrastructure among other purposes. These include:

- Targeted sales tax (e.g., prepared food and beverage tax)
- Transient lodging tax

Appendix E. SDC Fees by Jurisdiction, 2007 and 2022

Contributors: FCS Group, Galardi Rothstein Group, ECONorthwest

Exhibit 58: SDC Rates by Jurisdiction and Infrastructure System, 2007

Source: FCS GROUP based on data from League of Oregon Cities, *System Development Charges Survey Report* (February 2020)

City	Parks	Sewer	Water	Transportation	Stormwater	Total
Aurora	\$2,205	\$2,032	\$4,153	\$2,095	\$159	\$10,644
Banks			\$2,103	\$3,020		\$5,123
Beaverton		\$2,700	\$3,144	\$3,020	\$900	\$9,764
Bend		\$1,973	\$3,385	\$4,217		\$9,575
Boardman		\$1,189	\$1,392			\$2,581
Brownsville		\$5,160	\$2,093		\$1,968	\$9,221
Cannon Beach		\$1,448	\$1,407		\$815	\$3,670
Carlton	\$1,794	\$5,062	\$2,892		\$1,029	\$10,777
Cave Junction		\$2,985	\$2,150			\$5,135
Central Point	\$2,944		\$1,255	\$4,033	\$410	\$8,642
Columbia City	\$1,438	\$1,561	\$4,127	\$4,399	\$250	\$11,775
Cornelius	\$2,143	\$1,000	\$1,032	\$3,020	\$500	\$7,695
Corvallis	\$4,746	\$3,028	\$1,008	\$2,046	\$148	\$10,976
Cottage Grove	\$234	\$692	\$775	\$776	\$1,255	\$3,732
Creswell	\$1,539	\$4,520	\$5,026	\$597		\$11,682
Culver		\$4,148			\$1,750	\$5,898
Dayton	\$100	\$1,265	\$3,633	\$1,126		\$6,124
Detroit			\$7,943			\$7,943
Donald		\$2,250	\$2,250			\$4,500
Drain						\$0
Dufur		\$950	\$1,215			\$2,165
Eugene	\$2,624	\$508	\$2,276	\$1,582	\$493	\$7,483
Florence		\$3,354	\$2,838	\$692	\$1,636	\$8,520
Garibaldi	\$1,000	\$2,001	\$2,262	\$3,145	\$2,475	\$10,883
Gladstone		\$216	\$1,448	\$1,171		\$2,835
Glendale						\$0
Grants Pass	\$2,552	\$2,463	\$2,366	\$5,656	\$412	\$13,449
Gresham	\$3,185	\$4,923	\$4,043	\$2,748	\$802	\$15,701
Halsey		\$523	\$646		\$1,060	\$2,229
Hermiston		\$678	\$1,404			\$2,082
Hood River		\$1,408	\$2,585	\$705		\$4,698
Jefferson		\$7,960	\$1,206			\$9,166
Junction City	\$1,090	\$6,669	\$1,100	\$1,116		\$9,975
Klamath Falls	\$898	\$1,955	\$2,533			\$5,386
Lakeside		\$1,827				\$1,827

City	Parks	Sewer	Water	Transportation	Stormwater	Total
Lakeview	\$25	\$578	\$177	\$39		\$819
Lincoln City	\$1,528	\$4,725	\$2,263	\$531	\$25	\$9,072
Lowell	\$889	\$1,187	\$6,268	\$618	\$400	\$9,362
Madras	\$1,780	\$3,000	\$838	\$2,303	\$210	\$8,131
Manzanita			\$3,700			\$3,700
Maupin						\$0
Milton-Freewater	\$525	\$930	\$870			\$2,325
Monmouth	\$1,484	\$2,753	\$1,413	\$394	\$247	\$6,291
Mosier	\$1,495	\$3,759	\$4,499			\$9,753
Nehalem			\$2,367			\$2,367
Newberg	\$1,471	\$1,469	\$3,533	\$2,388	\$258	\$9,119
North Plains	\$4,941		\$5,791	\$3,513		\$14,245
Oakland		\$2,995	\$2,933			\$5,928
Ontario						\$0
Pendleton				\$1,050		\$1,050
Philomath	\$684	\$5,719	\$6,228	\$3,488	\$1,080	\$17,199
Port Orford		\$3,568	\$6,412			\$9,980
Portland	\$3,053	\$2,995	\$2,496	\$1,883	\$585	\$11,012
Prineville		\$4,089	\$2,477	\$2,801		\$9,367
Redmond	\$834	\$2,105	\$2,092	\$2,877		\$7,908
Riddle		\$3,000	\$1,827			\$4,827
Sandy	\$2,000	\$1,834	\$1,525	\$1,943		\$7,302
Scotts Mills			\$7,843			\$7,843
Seaside	\$325	\$675	\$2,873	\$444		\$4,317
Silverton	\$1,205	\$4,392	\$3,987	\$3,705	\$1,375	\$14,664
Stayton	\$2,254	\$3,528	\$2,670	\$2,512		\$10,964
Tangent	\$875	\$3,285		\$354	\$124	\$4,638
The Dalles		\$1,789	\$2,317			\$4,106
Tigard	\$4,812		\$2,041	\$3,020		\$9,873
Turner	\$850	\$5,000	\$2,400	\$400		\$8,650
Umatilla		\$743	\$1,029			\$1,772
Veneta	\$3,197	\$3,250	\$1,937	\$1,694	\$142	\$10,220
Waldport	\$379	\$3,037	\$2,505			\$5,921
West Linn	\$8,029	\$2,539	\$6,698	\$4,721	\$439	\$22,426
Westfir		\$5,318	\$3,225			\$8,543
Wilsonville	\$2,451	\$4,068	\$4,345	\$3,082	\$482	\$14,428
Winston	\$150	\$1,913		\$589		\$2,652
Wood Village		\$6,688	\$1,877			\$8,565
Woodburn	\$1,448	\$2,977	\$2,024	\$3,286	\$275	\$10,010
Yachats		\$4,650	\$3,003			\$7,653
Yamhill	\$3,023	\$1,697	\$3,295	\$300		\$8,315

Exhibit 59: SDC Rates by Jurisdiction and Infrastructure System, 2022

Source: FCS GROUP based on data from jurisdictions, with contributions from Galardi Rothstein Group and ECONorthwest

City	Parks	Sewer	Water	Transportation	Stormwater	Total
Aurora	\$2,205	\$2,032	\$5,543	\$2,740	\$160	\$12,680
Banks	\$2,535	\$6,625	\$4,999	\$17,920	\$585	\$32,664
Beaverton	\$11,787	\$6,625	\$9,354	\$9,998	\$1,252	\$39,016
Bend	\$9,544	\$5,667	\$6,355	\$9,269		\$30,835
Boardman		\$1,783	\$2,087			\$3,870
Brownsville		\$5,160	\$2,093		\$1,968	\$9,221
Cannon Beach	\$1,116	\$4,849	\$2,034		\$424	\$8,423
Carlton	\$2,142	\$8,832	\$8,740	\$4,210	\$2,295	\$26,219
Cave Junction		\$2,985	\$2,150			\$5,135
Central Point	\$2,445	\$3,142	\$3,267	\$2,326	\$514	\$11,695
Columbia City	\$2,019	\$5,764	\$4,292	\$4,575	\$388	\$17,038
Cornelius	\$4,471	\$5,732	\$9,449	\$9,998	\$1,910	\$31,560
Corvallis	\$7,755	\$4,963	\$1,573	\$3,357	\$226	\$17,874
Cottage Grove	\$2,476	\$996	\$4,938	\$2,166	\$904	\$11,481
Creswell	\$3,439	\$6,898	\$2,405	\$3,749	\$295	\$16,786
Culver		\$4,088			\$1,750	\$5,838
Dayton	\$100	\$7,564	\$4,242	\$1,125		\$13,031
Detroit	\$506		\$6,187		\$1,977	\$8,670
Donald	\$1,509	\$22,275	\$2,835	\$3,031	\$806	\$30,456
Drain		\$1,619	1650			\$3,269
Dufur		\$5,000	\$5,000			\$10,000
Eugene	\$5,424	\$2,553	\$2,276	\$3,489	\$733	\$14,475
Florence		\$5,507	\$4,396	\$1,063	\$2,527	\$13,493
Garibaldi	\$816	\$2,755	\$1,980	\$1,650	\$2,000	\$9,201
Gladstone	\$9,027	\$6,495	\$9,040		\$3,477	\$28,039
Glendale			\$2,040			\$2,040
Grants Pass	\$941	\$3,869	\$2,863	\$1,204	\$710	\$9,586
Gresham	\$4,694	\$7,055	\$5,305	\$4,589	\$1,344	\$22,987
Halsey		\$641	\$783		\$1,416	\$2,840
Hermiston	\$450	\$251	\$294	\$99		\$1,094
Hood River	\$5,064	\$1,056	\$1,786	\$3,703	\$756	\$12,365
Jefferson	\$4,262	\$3,971	\$4,979	\$75	\$105	\$13,392
Junction City	\$2,044	\$9,083	\$1,100	\$1,052		\$13,279
Klamath Falls	\$1,748	\$6,691	\$3,304	\$3,590		\$15,333
Lakeside		\$2,274	\$5,477			\$7,751
Lakeview	\$25	\$578	\$177	\$39		\$819
Lincoln City	\$2,446	\$4,475	\$2,423	\$850	\$75	\$10,269
Lowell	\$1,032	\$1,689	\$4,575	\$696	\$673	\$8,665
Madras	\$2,200	\$6,063	\$1,591	\$4,315	\$259	\$14,427
Manzanita	\$60	\$4,258	\$6,900		\$174	\$11,392
Maupin	\$500	\$3,000	\$1,000			\$4,500
Milton-Freewater	\$525	\$1,125	\$1,050			\$2,700

City	Parks	Sewer	Water	Transportation	Stormwater	Total
Monmouth	\$2,142	\$3,542	\$1,819	\$4,020	\$447	\$11,970
Mosier	\$1,495	\$4,104	\$3,866	\$4,154	\$1,499	\$15,118
Nehalem		\$4,258	\$3,235			\$7,493
Newberg	\$8,432	\$7,984	\$6,444	\$7,618	\$438	\$30,916
North Plains	\$8,823	\$6,625	\$11,615	\$19,621	\$585	\$47,269
Oakland		\$3,795	\$2,933			\$6,728
Ontario		\$481	\$975	\$1,288		\$2,744
Pendleton				\$1,775		\$1,775
Philomath	\$5,150	\$6,846	\$8,855	\$5,396	\$1,801	\$28,048
Port Orford		\$4,962	\$8,919			\$13,881
Portland	\$10,927	\$8,299	\$5,548	\$5,694	\$1,251	\$31,719
Prineville	\$3,600	\$2,629	\$5,141	\$4,848		\$16,218
Redmond	\$5,818	\$4,669	\$2,992	\$4,678		\$18,157
Riddle		\$3,000	\$2,327			\$5,327
Sandy	\$3,717	\$5,480	\$3,841	\$4,317		\$17,354
Scotts Mills			\$7,843			\$7,843
Seaside	\$1,699	\$4,882	\$2,873	\$444		\$9,898
Silverton	\$6,240	\$4,653	\$8,285	\$3,760	\$877	\$23,815
Stayton	\$3,478	\$2,697	\$3,620	\$2,927	\$3,216	\$15,938
Tangent	\$3,239	\$6,996		\$1,315	\$127	\$11,677
The Dalles		\$1,789	\$2,317	\$1,500	\$342	\$5,948
Tigard	\$11,225	\$6,625	\$10,853	\$18,206	\$641	\$47,550
Turner	\$1,969	\$3,094	\$3,682	\$2,122		\$10,867
Umatilla		\$1,858	\$1,544			\$3,402
Veneta	\$5,949	\$6,903	\$7,895	\$3,994	\$224	\$24,966
Waldport	\$648	\$4,448	\$4,590			\$9,686
West Linn	\$12,943	\$4,243	\$10,576	\$1,964	\$1,479	\$31,205
Westfir		\$5,298	\$3,225			\$8,523
Wilsonville	\$6,969	\$6,289	\$16,455	\$15,264	\$2,112	\$47,089
Winston	\$150	\$3,874		\$1,194		\$5,218
Wood Village	\$3,119	\$3,565	\$3,819			\$10,503
Woodburn	\$4,188	\$2,977	\$3,944	\$6,988	\$330	\$18,427
Yachats		\$7,648	\$4,939		\$1,642	\$14,229
Yamhill	\$3,348	\$3,867	\$6,496	\$2,136	\$1,781	\$17,628

Appendix F. Pro Forma Model Methodology

Contributors: ECONorthwest

ECONorthwest used a pro forma analysis to analyze SDC share of total development costs and the impacts of SDCs on the financial feasibility of new developments. This work typically involves researching market data based on past transactions, gathering inputs from the local development community, and understanding zoning and other regulatory requirements. A more robust research of input data helps build a more accurate model of development feasibility within local contexts.

However, many simplifying assumptions are made to develop a consistent approach that can capture different economic conditions across Oregon. The assumptions result in a few development examples called prototypes whose exact physical and financial characteristics are unlikely to be observed in all markets. Instead, the prototypes serve as representative examples of the categories of housing developments that are possible in Oregon. Analyzing the difference in model results generates key findings that are applicable across all housing types, beyond the few specific ones modeled through the prototypes.

It is not easy to create a single model for a statewide study that involves many varieties of housing markets. There are many geographic markets, and within each are markets for housing types. Some markets resemble each other, but unique circumstances of some markets are difficult to generalize or summarize with other markets. Although many variations and combinations of geographic markets and housing types are possible, seven geographic markets and seven housing types are selected for analysis.

To test the effects of different levels and structures of SDCs across housing markets and types, ECONorthwest used a pro forma analysis, which is a financial model that estimates the feasibility of a new real estate development based on the building's financial performance. Real estate professionals regularly use pro forma analysis to model the revenues and costs of potential developments, evaluate their returns, and understand sources of funding needed for a project to move forward. For the purposes of this study, pro forma analysis is an economic model that can demonstrate the impact of SDCs on potential business decisions that housing developers could face.

Geographic Markets

ECONorthwest modeled seven geographic categories of housing markets in Oregon. They are broad categories that reflect typical housing prices and construction costs across the cities that fall within each geographic region. The market context areas are:

1. **Willamette Valley:** Larger cities along Interstate 5, with some similar housing options within a local housing market. Does not include cities in the Portland Metro area.

2. **Small Cities:** Smaller cities along Interstate 5 or remotely located in eastern Oregon. Relatively stagnant growth, lower demand, and lower land costs are observed in comparison to other market context areas.
3. **Coast:** Coastal cities with many vacation rentals and second homes.
4. **Metro Low:** Suburban cities and neighborhoods in the Portland Metro area with moderate demand for new housing and limited production of new housing.
5. **Metro Mid:** Suburban cities and neighborhoods in the Portland Metro area with relatively strong demand for new housing and, sometimes, large tracts of planned developments.
6. **Metro High:** More exclusive neighborhoods in the Portland Metro area with higher prices and relatively few options for new housing.
7. **Cascades:** Cities east of the Willamette Valley that experienced a strong level of housing demand and production in recent years.

The values used for each geographic market are not intended to represent a specific city, and average housing prices and costs vary by city. Rather, the values are representations of likely values observed across many parts of the geographic market. Moreover, specific economic conditions in some cities or neighborhoods could mean that they resemble the market conditions of a geographic market category that is outside the geographic location. Therefore, the presented data should be interpreted as data “commonly observed in a city like cities in X market.”

ECONorthwest defined the geographic markets based both on their geography and on economic factors including relative size of market for new housing, competitiveness or tightness of housing market, substitutability of new housing, and price of vacant parcels that could be developed with new housing. Market size is related to the population of a city or a few adjacent cities where a potential homebuyer or renter could consider relocating to. Substitutability is related to the presence (and production) of similar alternatives for new housing within a market, as previously described in the review of academic literature. Exhibit 60 and Exhibit 61 summarize the factors and the markets.

The evaluation of factors that defined the geographic markets were based on a relative comparison of cities within Oregon. While some cities are producing more housing than others, housing production across the state generally does not match the demand and contributes to the lack of housing affordability.

Exhibit 60. Characteristics of Geographic Markets in Oregon

Source: ECONorthwest

	Willamette Valley	Small Cities	Coast	Metro Low	Metro Mid	Metro High	Cascades
Market Size	Large	Small	Small	Medium	Large	Small	Medium
Competitiveness (Demand)	Moderate	Low	Moderate	Moderate	High	Very High	High
Substitutability (Production)	Moderate	Low	Low	Low	High	Low	Moderate
Land Price	Moderate	Low	Low	Moderate	Moderate	High	High

Exhibit 61. Comparison of Competitiveness and Substitutability in Oregon's Geographic Markets

Source: ECONorthwest



Housing Types

ECONorthwest modeled seven housing types: two scales of a three-story apartment building, two townhouses, and three different sizes of detached single-family units. These housing types are based on new housing types that are likely to occur in all or most of the geographic markets. They do not include taller apartments because they are unlikely to be built in less populated cities, and they do not include single-family dwellings on larger lots because they are unlikely to be built in urban areas where buildable land is scarcer.

Physical Assumptions by Housing Type

The following is a more detailed description of the prototypes, and a summary is provided in Exhibit 62.

- Low-Rise Apartment is a three-story building with 55 units on an acre. Landscape covers 20 percent of the lot. The average leasable unit size is 738 sq. ft. It has 55 surface parking stalls.
- Garden Apartment is a three-story building with 120 units on four acres. Landscape covers 42 percent of the lot. The average leasable unit size is 811 sq. ft. It has 180 surface parking stalls.
- Townhouse prototypes are 1,500-sq.-ft. units with 2,400 sq. ft. of site area per unit. They are two-story structures with a one-car garage for each unit. One prototype is a rental unit, and the other is an ownership unit.

- Small Single-Family is a 1,550-sq.-ft. unit on a lot measuring 4,800 sq. ft. It has a one-car garage.
- Medium Single-Family is a 2,000-sq.-ft. unit on a lot measuring 6,500 sq. ft. It has a two-car garage.
- Large Single-Family is a 2,650-sq.-ft. unit on a lot measuring 6,500 sq. ft. It has a two-car garage and a higher finish quality.

Exhibit 62. Summary of Physical Features of Prototypes

Source: ECONorthwest

Example Housing Type	Building Height (Floors)	Density (Units per Acre)	Average Unit Size (Square Feet)	Parking
Low-Rise Apartment	3	55.0	738	1.0 Stalls per Unit (surface parking)
Garden Apartment	3	30.0	811	1.5 Stalls per Unit (surface parking)
Townhouse	2	18.2	1,500	Single-Car Garage
Small Single-Family	2	9.1	1,550	Single-Car Garage
Medium Single-Family	2	6.7	2,000	Two-Car Garage
Large Single-Family	2	6.7	2,650	Two-Car Garage

Two scales of apartments—**Low-Rise Apartment** and **Garden Apartment**—are included to demonstrate how the impact of SDCs on development feasibility vary by residential density. The review of academic literature revealed that developers of apartments are unlikely to increase unit sizes to spread out the fixed cost of SDCs that are applied per unit. The notion is tested with two housing types that have the same land cost and building height but a different unit mix, residential density, and parking ratio. The average unit size in Low-Rise Apartment is smaller, but it has more units than Garden Apartment. Low-Rise Apartment allows for 1.0 parking stall per unit, whereas Garden Apartment allows for 1.5 parking stalls per unit.

Two versions of townhouses demonstrate the relationship between SDCs and tenure. The two modeled buildings have the same physical form (thus the same development costs), but their tenure is different (i.e., **Townhouse Rental** and **Townhouse Ownership**).

Three different sizes of detached single-family units demonstrate how the impact of SDCs vary with unit size and lot size. All are ownership units. **Medium Single-Family** serves as a reference point. **Small Single-Family** has a smaller unit size and lot size. Because it has a higher residential density, it is effectively the same test as the test for apartments. **Large Single-Family** has a large unit size on the same lot (thus no change in residential density). It tests the assertion made in the review of academic literature that spreading SDCs over a larger unit size is preferred because it reduces cost per square foot.

Financial Assumptions by Housing Type

Exhibit 63 summarizes the total development costs for each geographic market and housing type used in the model (rounded to the nearest thousand). Total development costs include construction labor and material (called “hard costs”), land costs, and “soft costs” such as design and engineering, project management, financing, permits, and fees. They do not include SDCs

or profit margins (investor returns) since those are key variable inputs and outputs of the analysis. Land costs are based on recent transactions of small, vacant lots recorded on Redfin. Cost indices from RSMMeans and 2022 National Building Cost Manual²³⁵ are used to differentiate the construction costs across markets. Within each market, the construction costs of all prototypes are based the same kitchen, bathroom, and bedroom costs per square foot of building area; garage cost; surface parking cost; parking ratio; driveway cost; and landscape cost.

Exhibit 63. Total Development Cost Per Unit, Excluding SDCs

Source: ECONorthwest

	Willamette Valley	Small Cities	Coast	Metro Low	Metro Mid	Metro High	Cascades
Low-Rise Apartment	\$172,000	\$155,000	\$170,000	\$191,000	\$199,000	\$226,000	\$200,000
Garden Apartment	\$200,000	\$175,000	\$194,000	\$219,000	\$233,000	\$283,000	\$255,000
Townhouse Rental	\$293,000	\$253,000	\$282,000	\$317,000	\$341,000	\$424,000	\$384,000
Townhouse Ownership	\$293,000	\$253,000	\$282,000	\$317,000	\$341,000	\$424,000	\$384,000
Small Single-Family	\$353,000	\$385,000	\$325,000	\$371,000	\$419,000	\$583,000	\$544,000
Medium Single-Family	\$479,000	\$387,000	\$442,000	\$503,000	\$568,000	\$791,000	\$737,000
Large Single-Family	\$570,000	\$474,000	\$535,000	\$607,000	\$672,000	\$895,000	\$826,000

Typical SDCs in each market used in the analysis are summarized in Exhibit 64. The single-family SDCs are determined by calculating the average SDC rate in the 2022 SDC rate data collected by FCS GROUP. Townhouse SDCs are 90 percent of single-family SDCs. Multifamily SDCs are 66 percent of single-family SDCs.

Exhibit 64. Typical SDCs

Source: ECONorthwest, FCS GROUP

	Willamette Valley	Small Cities	Coast	Metro Low	Metro Mid	Metro High	Cascades
Low-Rise Apartment	\$13,002	\$5,676	\$6,930	\$16,500	\$29,304	\$32,208	\$12,144
Garden Apartment	\$13,002	\$5,676	\$6,930	\$16,500	\$29,304	\$32,208	\$12,144
Townhouse Rental	\$17,730	\$7,740	\$9,450	\$22,500	\$39,960	\$43,920	\$16,560
Townhouse Ownership	\$17,730	\$7,740	\$9,450	\$22,500	\$39,960	\$43,920	\$16,560

²³⁵ Moselle, Ben. 2022 National Building Cost Manual. 46th Edition. Carlsbad, CA: Craftsman Book Company, 2022.

	Willamette Valley	Small Cities	Coast	Metro Low	Metro Mid	Metro High	Cascades
Small Single-Family	\$19,700	\$8,600	\$10,500	\$25,000	\$44,400	\$48,800	\$18,400
Medium Single-Family	\$19,700	\$8,600	\$10,500	\$25,000	\$44,400	\$48,800	\$18,400
Large Single-Family	\$19,700	\$8,600	\$10,500	\$25,000	\$44,400	\$48,800	\$18,400

To reflect the realities of each housing market, the model uses different prices, rents, and costs for each market and prototype. ECONorthwest collected price and rent data as well as some data on the physical dimensions of the prototypes from CoStar and Redfin using representative samples of recently built and transacted housing. Exhibit 65 summarizes the monthly rents (rounded to nearest ten) and sales prices (rounded to nearest thousand) for each geographic market and housing type used in the model. A consistent vacancy rate and operating expense ratio (as a percentage of rent) are used for rental prototypes.

Exhibit 65. Market Rents and Prices

Source: ECONorthwest

	Willamette Valley	Small Cities	Coast	Metro Low	Metro Mid	Metro High	Cascades
Low-Rise Apartment	\$1,500	\$1,030	\$1,110	\$1,660	\$1,770	\$2,040	\$1,900
Garden Apartment	\$1,570	\$1,090	\$1,170	\$1,770	\$1,870	\$2,180	\$1,980
Townhouse Rental	\$2,090	\$1,610	\$1,860	\$2,760	\$2,780	\$3,500	\$2,900
Townhouse Ownership	\$384,000	\$278,000	\$390,000	\$389,000	\$512,000	\$675,000	\$558,000
Small Single-Family	\$448,000	\$334,000	\$454,000	\$488,000	\$641,000	\$854,000	\$675,000
Medium Single-Family	\$558,000	\$418,000	\$612,000	\$597,000	\$742,000	\$1.04 million	\$831,000
Large Single-Family	\$727,000	\$524,000	\$797,000	\$678,000	\$897,000	\$1.35 million	\$1.09 million

Full Results for SDC Share of Total Development Costs

Section 4.3.2 presented the variation in SDC share of development costs across the state for three markets with different levels of development costs. The three markets are a shorter list of seven market context areas that were analyzed for this report. Exhibit 66 compares the typical development costs and per-unit SDC amounts in the seven markets.

For each market context area, ECONorthwest calculated an average of single-family SDC rates reported in the 2022 LOC survey by FCS GROUP. The townhouse SDC rates are 90 percent of the single-family SDC rates. The multifamily SDC rates are 66 percent of the single-family SDC rates.

Exhibit 67 shows the SDC share of development costs. Depending on the housing type and the market, the SDC share of development costs can range from 1.8 percent to 12.8 percent in Oregon.

Exhibit 66. SDCs and Other Development Costs, By Market Context Area and Housing Type

Source: ECONorthwest

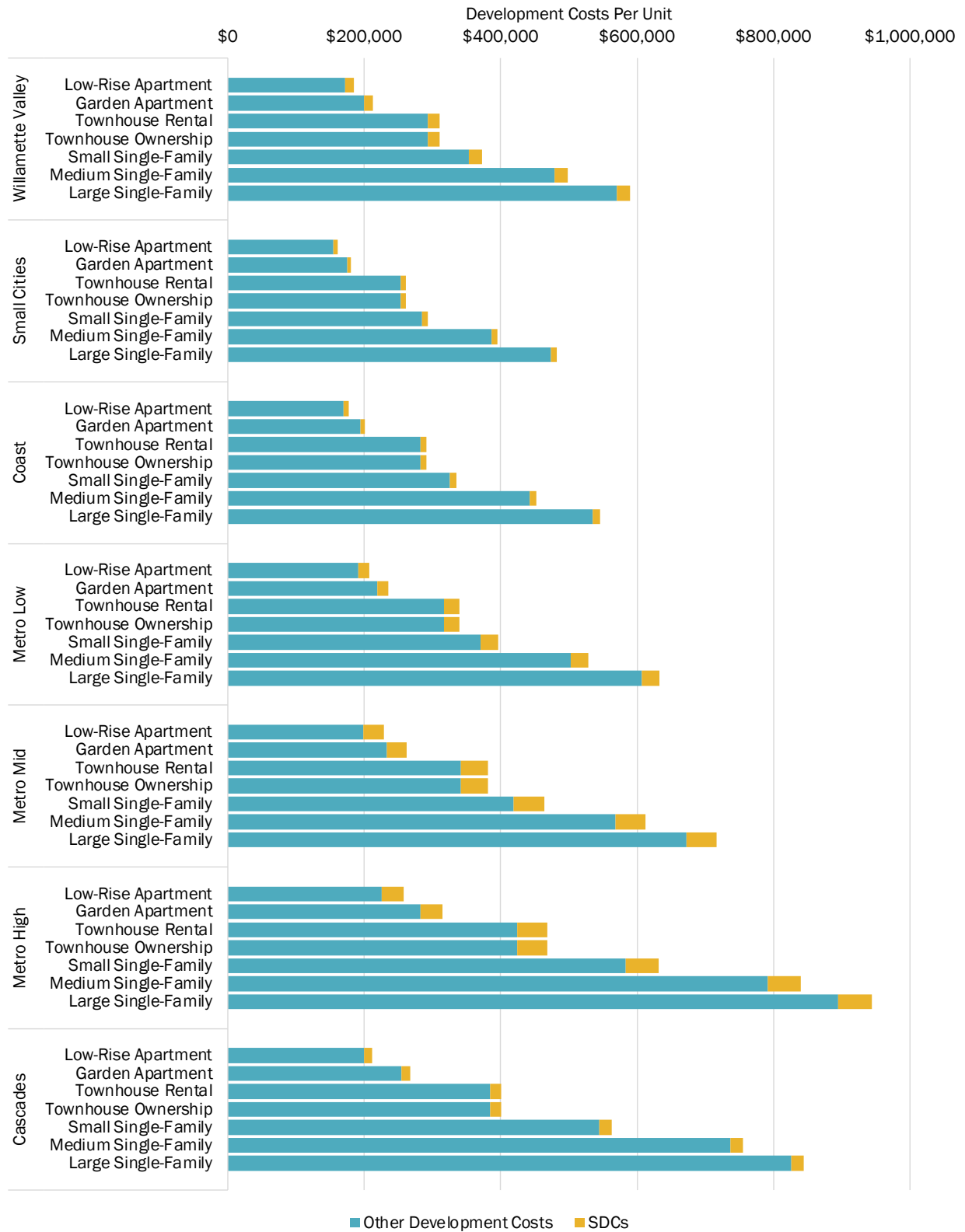
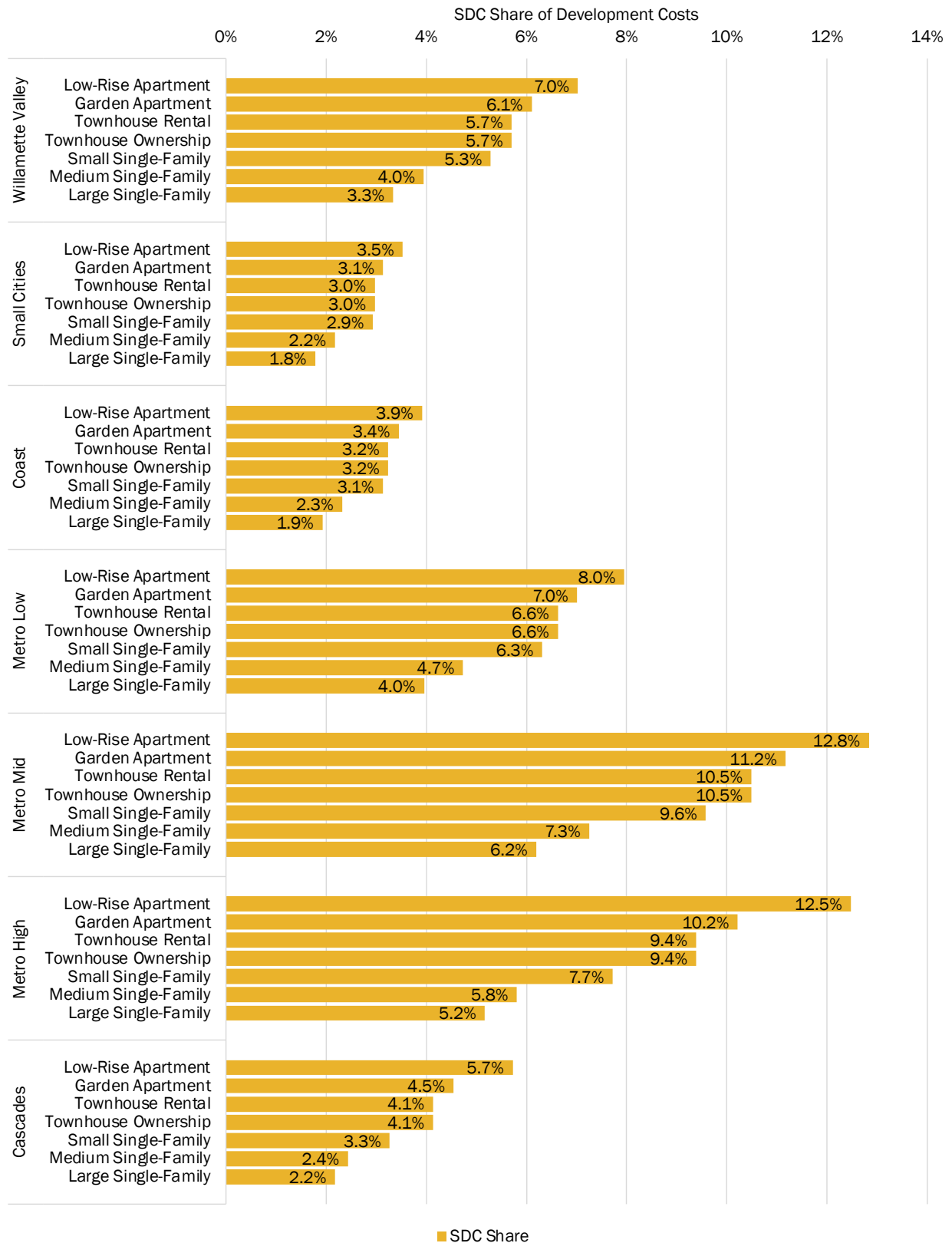


Exhibit 67. SDCs Share of Total Development Costs, by Market Context Area and Housing Type

Source: ECONorthwest



Key Assumptions for Feasibility Evaluation

The key output of the pro forma model is investor returns, and how they change with the amount or structure of SDCs. Although there are many methods to calculate and measure investor returns, the metric selected for this study is internal rate of return (IRR). IRR is a commonly used financial metric in the real estate industry to estimate the profitability of real estate investments. It is a form of discount rate and measured in percentage points. The feasibility analysis includes a cash flow model with expenses and sales related to housing construction occurring at different points in time. A 3 percent annual escalation is assumed for costs, rents, and prices. A 2 percent annual escalation for operating expenses. All units are assumed to be fully occupied at the end of the analysis period.

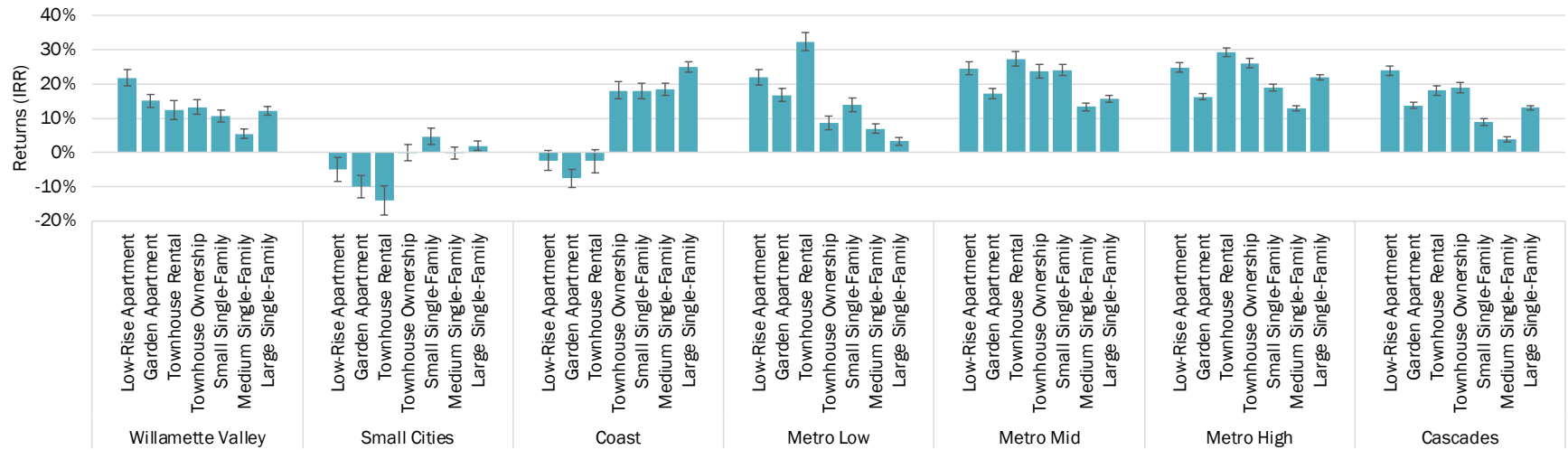
To estimate the impact of SDCs on development feasibility, ECONorthwest estimated the change in IRR resulting from fixed changes in SDC amounts. The amounts are \$10,000 for single-family, \$9,000 for townhouse, and \$6,600 for multifamily across all markets. More specifically, ECONorthwest measured the percentage point change in IRR when the modeled per-unit SDC amount for a single-family unit is reduced from \$15,050 to \$5,050 or increased from \$15,050 to \$25,050, and when then SDC amount for townhouse and multifamily units are adjusted accordingly.

Exhibit 68 illustrates the results of the feasibility calculations. The sizes of the bars indicate the IRR with a \$15,050 SDC per single-family unit, a \$13,545 SDC per townhouse unit, and \$9,933 SDC per multifamily unit. The error bars indicate the difference in IRR from the specified change in SDC amount, all else equal. The absolute change in IRR, or about half of the size of the error bars, is the estimates represented in Exhibit 43 and Exhibit 44 (Section 4.4.1).

The wide range of the IRR estimates are partly due to the simplifying assumptions made to develop a consistent approach that can capture different economic conditions across Oregon. Realistically, the types and specific characteristics of housing units that market-rate developers would pursue differ by geographic markets and site-specific conditions. Moreover, the \$15,050 baseline for the single-family SDC amount and the \$10,000 change are also simplifying assumptions designed to produce analytical results rather than predict market activity.

Exhibit 68. Feasibility Analysis Results

Source: ECONorthwest



Appendix G. Literature Review

Contributors: ECONorthwest

ECONorthwest reviewed the following list of peer-reviewed and published academic literature for this report.

- Baden, Brett M., and Don L. Coursey. *An Examination of the Effects of Impact Fees on Chicago's Suburbs*. University of Chicago, Irving B. Harris Graduate School of Public Policy Studies, 1999.
- Burge, Gregory. "The Capitalization Effects of School, Residential, and Commercial Impact Fees on Undeveloped Land Values." *Regional Science and Urban Economics* 44 (2014): 1-13.
- Burge, Gregory, and Keith Ihlanfeldt. "Impact fees and single-family home construction." *Journal of Urban Economics* 60, no. 2 (2006): 284-306.
- Coutts, Christopher, Sang-Seok Bae, Sung-Wook Kwon, Sang-Chul Park, and Richard Feiock. "Development Impact Fees: A Vehicle or Restraint for Land Development?." *Journal of Local Self-Government* (2015): 1047-1065.
- Delaney, Charles J., and Marc T. Smith. "Impact Fees and the Price of New Housing: An Empirical Study." *Real Estate Economics* 17, no. 1 (1989): 41-54.
- Dresch, Marla, and Steven M. Sheffrin. *Who Pays for Development Fees and Exactions?*. Public Policy Institute of CA, 1997.
- Evans-Cowley, Jennifer S., Fred A. Forgey, and Ronald C. Rutherford. "The Effect of Development Impact Fees on Land Values." *Growth and Change* 36, no. 1 (2005): 100-112.
- Ihlanfeldt, Keith R., and Timothy M. Shaughnessy. "An Empirical Investigation of the Effects of Impact Fees on Housing and Land Markets." *Regional Science and Urban Economics* 34, no. 6 (2004): 639-661.
- Lawhon, Larry L. "Overcoming Potential Exclusivity Associated With Impact Fees: Loveland, Colorado's 30-Year Experience in Development Impact Fees." *Journal of Architectural and Planning Research* (2015): 217-233.
- Mathur, Shishir. "Do All Impact Fees Affect Housing Prices the Same?." *Journal of Planning Education and Research* 33, no. 4 (2013): 442-455.
- Mathur, Shishir, Paul Waddell, and Hilda Blanco. "The Effect of Impact Fees on the Price of New Single-family Housing." *Urban Studies* 41, no. 7 (2004): 1303-1312.

Mayer, Christopher J., and C. Tsurriel Somerville. "Land Use Regulation and New Construction." *Regional Science and Urban Economics* 30, no. 6 (2000): 639-662.

Singell, Larry D., and Jane H. Lillydahl. "An Empirical Examination of the Effect of Impact Fees on the Housing Market." *Land Economics* 66, no. 1 (1990): 82-92.

Skaburskis, Andrejs, and Mohammad Qadeer. "An Empirical Estimation of the Price Effects of Development Impact Fees." *Urban Studies* 29, no. 5 (1992): 653-667.

Skidmore, Mark, and Michael Peddle. "Do Development Impact Fees Reduce the Rate of Residential Development?" *Growth and Change* 29, no. 4 (1998): 383-400.

Exhibit 69 is a summary of ECONorthwest's review of the literature.

Exhibit 69. Summary of Empirical Studies on Impact Fees

Source: ECONorthwest

Author(s) (Publication Year)	Data Year	Location	Context	Outcome Variable and Methodology	Results
Delaney and Smith (1989)	1971 to 1982	Dunedin, FL	Coastal city near Tampa	Housing price (new single-family) in Dunedin compared to three other cities in the same county before and after fee adoption	Increase in housing prices was greater than in nearby cities with no or minimal impact fees. Suggests the total cost of fee is passed on to new homebuyers.
Singell and Lillydahl (1990)	1983 to 1985	Loveland, CO	Fast economic growth during 1970s. Impact fee in adopted in 1984	Housing price (new and existing units) before and after fee adoption	New housing prices were higher by 3 times the fee for new housing and 6 times the fee for existing housing.
Dresch and Sheffrin (1997)	1992 to 1996	Contra Costa County, CA	Declining economic conditions, particularly in eastern county	Housing price (new and existing units) across the county leveraging within- county variation in fee amount	Impact fee is associated with higher housing prices—by 25% of fee in eastern county and 188% of fee in western county.
Baden and Coursey (1999)	1995 to 1997	8 suburb cities near Chicago, IL	Fast economic growth during 1980s	Housing price (new and existing units) in suburban cities. Impact fee amounts vary across the cities	Price of new housing is higher by 70- 120% of the impact fee.
Mathur, Waddell, and Blanco (2004)	1991 to 2000	King County, WA	Period of rapid economic growth. Cities with impact fees grew from 2 in 1994 to 14 in 2000	Housing price (new single-family) in cities with different fee amounts, controlling for year sold and other factors	166% of the fee amount is reflected in prices of new units.
Mathur (2013)	1991 to 2000	King County, WA	Period of rapid economic growth. Cities with impact fees grew from 2 in 1994 to 14 in 2000	Housing price (single- family), correlation with impact fees	Impact fee is positively correlated with single-family housing prices.

Author(s) (Publication Year)	Data Year	Location	Context	Outcome Variable and Methodology	Results
Skidmore and Peddle (1998)	1977 to 1992	DuPage County, IL	Fast growing suburb of Chicago	New residential construction (single- family and multifamily), comparing cities with and without impact fees	Impact fee is correlated with 25% reduction in residential development.
Mayer and Somerville (2000)	1985 to 1996	44 U.S. metro areas	Urban cities across U.S.	New residential construction (single- family), correlation with presence of impact fees	Up to 45% less construction starts observed in metro areas with more regulations.
Burge and Ihlanfeldt (2006)	1993 to 2003	FL (statewide)	Nearly two-thirds of Florida's counties have impact fees.	New residential construction, correlation with presence of impact fees in a given year	Impact fee for public services (excluding water and sewer) is correlated with increase in residential construction.
Skaburskis and Qadeer (1992)	1977 to 1986	Toronto	City's growth period varied during the study period.	Land price of vacant subdivision lots, correlation with impact fees	Impact fee is associated with higher land prices for vacant subdivision lots by 120% of the fee.
Ihlanfeldt and Shaughnessy (2004)	1985 to 2000	Dade County, FL	Impact fee since 1989	Undeveloped land price (new and existing units), correlation with impact fees	Housing prices are higher by 160% of the fee. Land prices are lower by 100% of the fee.
Evans-Cowley, Forget, and Rutherford (2005)	1997	Texas (43 cities in Austin, Dallas, Fort Worth, and Houston metro areas)	Cities of various sizes in Texas that have impact fees	Land price (Vacant and developed lots), correlation with impact fees, controlling for population growth among other factors	1.3% higher lot values for each \$1,000 of impact fees.
Burge (2014)	1994 to 2009	FL (statewide)	Impact fees for different kinds of infrastructure	Value of developable land parcels, correlation with impact fees	School impact fee is negatively correlated with value of residentially zoned land and positively correlated with commercially zoned. Water and sewer impact fee is negatively correlated with residentially zoned land value.

Author(s) (Publication Year)	Data Year	Location	Context	Outcome Variable and Methodology	Results
Bae, Kwon, Coutts, Park, and Feiock (2015)	1998 to 2007	FL (statewide)	Nearly two-thirds of Florida's counties have impact fees	Value of developable land parcels, correlation with impact fees	Impact fee is positively correlated with value of developable land parcels.
Lawhon (2015)	1960 to 2010	Loveland, CO	Period of rapid population growth	Number of rental units per nonwhite resident and annual MFI over time in Loveland and nearby towns	Impact fee is not significantly correlated with either outcome variable.

Appendix H. Case Study Methodology

Contributors: ECONorthwest

ECONorthwest identified several recent developments in Washington County that provide an opportunity to examine an example of the relationship between SDCs and housing prices within Oregon. Each development faced different SDC costs, but all compete within the same subregional housing market. ECONorthwest considered three areas that were recently brought into the Portland Metro urban growth boundary (UGB): South Cooper Mountain in the City of Beaverton, South Hillsboro in the City of Hillsboro, and River Terrace in the City of Tigard.

Study Areas

South Cooper Mountain is a 544-acre area that was brought into the UGB in 2011 and became part of Beaverton in 2013. The area sits at the far southwest edge of the city, along the border with Tigard. The community plan for South Cooper Mountain includes a mix of high-density, medium-density, and low-density residential areas to create a walkable, bikeable, and family-friendly neighborhood with a variety of housing options.

South Hillsboro includes 1,400 acres of farms, open space, and developed land at the southeastern edge of Hillsboro, along the border with Aloha. This area was brought into the regional UGB over several years, with the largest piece—1,062 acres—added in 2011. The South Hillsboro Community Plan approved in 2015 creates a new town center along Tualatin Valley Highway and a smaller village center, both with high-density housing, commercial, and retail spaces. The rest of the plan area includes a mix of apartments, townhomes, and lower-density housing and a network of open spaces linked by a trail system.

River Terrace is a 490-acre area just south of South Cooper Mountain that was added to the UGB in 2002 and 2011 and incorporated into the City of Tigard in 2014. The community plan for River Terrace envisions a primarily medium-density neighborhood of about 2,300 homes with one commercial core and a network of open spaces and parks.

SDCs in the Study Areas

Exhibit 70 summarizes the SDCs applied to single-family construction in South Cooper Mountain, South Hillsboro, and River Terrace (“growth areas”) and the standard citywide SDC rates applicable to adjacent developments that are not part of the growth area.²³⁶

Exhibit 70. System Development Charges for Detached Single-Family Housing, 2021

Source: City of Beaverton, City of Hillsboro, City of Tigard, and Washington County.

	Beaverton		Hillsboro		Tigard	
	Standard	Growth Area	Standard	Growth Area	Standard	Growth Area
Clean Water Services and County SDCs						
Sewer*	\$6,085		\$6,085		\$6,085	
Stormwater*	\$1,252		\$585		\$585	
Transportation**	\$9,623		\$9,623		\$9,623	
City-Specific SDCs						
Parks	\$11,787***		\$6,577	\$12,177	\$10,345	\$10,903
Transportation	-	\$8,826	-	\$13,523	\$7,076	\$10,348
Water	\$9,193		\$11,035		\$10,095	
Total	\$37,940	\$46,767 (+23%)	\$33,905	\$53,030 (+56%)	\$43,809	\$47,640 (+9%)

* Connection charges for Clean Water Services

** Transportation Development Tax for Washington County

*** Parks SDC from Tualatin Hills Park and Recreation District (THPRD)

Regression Model

ECONorthwest employed a linear regression model to analyze the relationship between SDCs and housing prices within the Portland metro area housing market, specifically in three cities in Washington County with recent urban growth areas. The data in the model are based on transaction data of home sales in each of the urban growth areas and in nearby neighborhoods with similar housing and access to transportation and retail amenities.

ECONorthwest created a dataset using property transaction data from Redfin. ECONorthwest analyzed sales transactions between January 2017, when the new construction in urban growth areas appeared on the market, and February 2022. This dataset included 1,519 unique properties in Washington County. ECONorthwest filtered the data to include only detached single-family units. Each observation was categorized as either within an urban growth area or in a comparison area. Each property was assigned an estimated total SDC amount based on the total SDC rates of each jurisdiction and the supplemental SDCs for units in urban growth areas.

²³⁶ Beaverton, Hillsboro, and Tigard adjust their SDCs annually using the Seattle Construction Cost Index — an inflation index — published by Engineering News-Record. Each city uses the data from a different month to set their updated fees. This table records fees at the start of the fiscal year in July 2021.

ECONorthwest adjusted the SDC rates to one year prior to construction to approximate SDC rates at the time of permitting, using the *Engineering News Record's* Construction Cost Index for Seattle.²³⁷ Finally, parcel sizes were joined from the Metro RLIS database and outliers were filtered out, for a total of 974 observations. The distribution of these observations by location is summarized in Exhibit 71.

Exhibit 71. Distribution of Observations in the Dataset by Location

Source: ECONorthwest, Redfin

Development Area	
Growth Area	689
Comparison Area	285
Total	974
City	
Beaverton	172
Hillsboro	467
Tigard	335
Total	974

ECONorthwest created three regression models to understand the relationship between aspects of development costs, location, amenities, and housing prices. Exhibit 72 summarizes the results of these analyses. The first model tested the per dollar relationship between SDCs and the price per square foot of a detached single-family unit. The results of this model indicate that for every dollar of SDCs, all else being equal, the price per square foot of a unit is higher by \$0.0007. In other words, \$10,000 in SDCs is related to about \$7 higher housing price per square foot. A second model tested the impact of location inside an urban growth area on housing prices. The results of this regression indicate that units inside urban growth areas sold for \$14.69 per square foot more than units outside of these growth areas, all else being equal. ECONorthwest also tested the effects of SDCs within each city. These city-specific analyses generally supported the findings of the first two models: Higher SDCs correlate with higher prices per square foot and prices per square foot are generally higher inside urban growth areas. However, the results are not reported in Exhibit 72 because there were not enough observations in the dataset for all the results of the third model to be statistically significant.

The regression models were able to explain about 74.4 to 75.4 percent of the variance in the dependent variable. In addition to the positive correlation between total SDCs and price per square foot, ECONorthwest also observed positive correlations between price per square foot and newer houses and a negative correlation with total square footage. This negative correlation is expected, the total development costs can be spread out across a greater unit size. While this linear model does capture some important relationships, it does not account for nonlinear phenomena such as construction costs, or the economies of scale that a developer might achieve when building a planned development.

²³⁷ This index is the method by which the City of Beaverton, the City of Hillsboro, and the City of Tigard adjust their SDC rates each year.

Exhibit 72. Summary of Linear Regression Results

Source: ECONorthwest

	Model 1	Model 2
	Coefficient (p-value)	
Total SDCs (dollars)	0.0007 (0.000)	-
Year Sold	13.7188 (0.000)	13.6446 (0.000)
Square Feet	-0.0470 (0.000)	-0.0480 (0.000)
Lot Size (square feet)	0.0096 (0.000)	0.0101 (0.000)
Number of Bedrooms	-5.329 (0.000)	-4.697 (0.000)
Number of Bathrooms	0.0456 (0.983)	0.557 (0.789)
Growth Area Development	-	14.6935 (0.000)
R ²	0.744	0.754

To help interpret the results of the regression models, ECONorthwest created a prototypical house with features frequently observed across all three cities. Exhibit 73 summarizes the features of this prototype. ECONorthwest applied the results of the primary regression model to this prototype to understand the relationship between SDCs of different amounts and a standardized detached home.

Exhibit 73. Housing Prototype Characteristics

Source: ECONorthwest

Feature	Value
Square Feet	2,400
Year Sold	2022
Year Built	2022
Beds	4
Baths	2.5
Lot Size (sq. ft)	4,500

Model 1 predicts that a \$10,000 difference in SDCs for this prototypical single-family unit would be associated with a \$16,800 higher sale price. Model 2 predicts that being in a growth area would be associated with roughly a \$35,260 higher sale price for this example home.

Appendix I. Testimony on HB 3040 Related to Timing of SDC Payment

Contributors: Galardi Rothstein Group

Exhibit 74. Testimony on House Bill 3040 Related to Timing of SDC Payments

Source: Summarized by ECONorthwest and Galardi Rothstein Group

File	Author	Testimony
16223	Unknown	Deferrals are an option for the local government.
16313	City of Wilsonville	Local governments should not be forced to defer SDCs or provide financing to developers.
16477	Multiple local governments	“Interest savings from delaying a SDC payment are minimal.”
16483	City of Cave Junction	“Deferring SDC charges would raise our administrative costs because we do not have the resources or capacity to track when a sale happens and then follow through with the SDC collection process. Where is the consequence if a new owner homeowner doesn’t pay the SDC charges? This bill puts the burden unfairly on the city.”
16512	City of Irrigon	“It should be up to each local jurisdiction if they want to defer collection . . . Deferring for a time after closing . . . shows that the state is in cooperation and working with developers and big businesses, not buyers or local governments.”
16567	Tualatin Hills PRD	Required deferrals would “come at a substantial cost and risk to local government.”
16571	City of Springfield	Required deferrals would “unnecessarily limit our ability to determine the timing of SDCs.”
16588	City of Gresham	Required deferrals “would create additional administrative burden” for the City.
16608	Special Districts Association of Oregon	Required deferrals would impose costs on local governments with no guarantee of savings for homebuyers.
16650	City of Hillsboro	Required deferrals would increase administrative burden.
16659	City of Portland	Local governments should continue to have the flexibility to determine the timing of SDC payments.
16664	Multnomah County	“Requiring that SDCs be assessed when a certificate of occupancy is issued or at the point of sale would make it difficult, if not impossible, for local governments to ensure collections from non-paying developers. Furthermore, this bill does not require that developers pass on cost savings to homebuyers or reduce housing prices.”
16690	Jim Brewer (affiliated with multiple cities)	Proposed deferral provisions are poorly worded and would have unintended consequences.
16694	City of Independence	“Changing the collection date will result in small savings on interest for developers and increase costs for local governments.”
16777	Metropolitan Wastewater Management Commission	Required deferrals would increase costs for ratepayers.
16819	Oregon Association of Clean Water Agencies	Required deferrals would increase costs for ratepayers.

File	Author	Testimony
16964	Unknown	“Changing the collection date will result in small savings on interest for developers and increase costs for local governments.”
17156	City of Prineville	Required deferrals would “not be effective in achieving the overarching goal of supporting affordable housing.”
17195	City of Sherwood	Required deferrals would impose costs on local governments with no guarantee of savings for homebuyers.
17208	City of Eugene	“Local governments are not involved in private property transactions and this requirement would result in an excessive burden on local governments to track real estate transactions to ensure that the public fees, which a project owes, are paid. Additionally, it is unclear how payment deferral for commercial and industrial developments assists with affordable housing.”
17407	Oregon Building Officials Association	“Tying SDC payment to ‘time of sale’ would create additional administration and local government involvement in a part of the process the local government has thus far been removed from, create a dramatic loss of efficacy because the local government would need to audit unsold properties continually until they sold and their associated SDC payments were verified, and place the local government in the ‘no-win’ position to create additional enforcement, potentially against the new homeowner, if the fees were not paid upon sale.”
17423	Metropolitan Mayors’ Consortium	Proposed provisions preempt local authority.
17430	American Planning Association Oregon Chapter	Deferral of SDCs should be at the discretion of the local government.
17433	Washington County	Required deferrals would “leave the County with a significantly higher administrative burden.”

Appendix J. Summary of Feedback on SDC Deferral Experience

To better understand the implications of SDC deferral programs for the jurisdiction, FCS GROUP and Galardi Rothstein Group contacted nine cities that have (or previously had) an SDC deferral program with questions regarding administration of this program (Exhibit 75).

Exhibit 75. SDC Deferral Program Contact Log

Source: ECONorthwest

Jurisdiction	Status
Cornelius	Current program
Madras	Current program
Medford	No response
Pendleton	Provided details only for installment payments (not deferrals)
Redmond	Had a program in the past; sunset program as of 2021.
Sherwood	Current program
Tigard	Current program
Veneta	Current program
Wilsonville	Had a program in the past; cancelled program in 2019 code update.

Each jurisdiction received the following questions:

- What are the eligibility criteria for SDC deferral?
- What are the program requirements (e.g., application process, is a lien required, is interest charged, etc.)?
- How often is the deferral option used, and what types of development use it most?
- How long does the deferral typically last (i.e., how long does most development that uses the deferral take between building permit and certificate of occupancy or when the SDCs are due)?
- Has non-payment been an issue for any of the developments that have used the deferral option? If so, how often has this been an issue?
- How much additional staff time is required for developments participating in the SDC deferral program compared to developments that pay SDCs at building permit? Which parts of the process require additional staff time?
- Do you have any additional comments or lessons learned to share about how the program is working in your jurisdiction?

In addition, one jurisdiction submitted comments on the Public Review Draft that described their deferral system. These comments have been integrated to the extent possible.

Feedback Summary

Eligibility & Program Requirements

Eligibility criteria varied widely among the jurisdictions contacted. Some allow deferrals for all residential and commercial projects or for all new residential development, while others limit eligibility based on SDC amount (e.g., Sherwood allows a deferral if the total City Transportation and Parks System Development Charges exceed \$50,000), or allow deferrals only for non-profits developing income-restricted housing (e.g., Cornelius).

Typical application processes require developers to submit a formal request, which the City reviews and approves. Roughly half of the jurisdictions report requiring a lien²³⁸ as a condition of SDC deferral. Others require agreements notarized by the property owner. None require interest payments for SDC deferral.

Timing of Payment

For most jurisdictions contacted, the deferred payment is due prior to receiving the Certificate of Occupancy (C of O); a few use a time limit in addition to or instead of the C of O (e.g., 9 months or a year). The jurisdiction that offered their experience as a comment on the Public Review Draft of the report noted they currently require payment at C of O, but have discussed moving the deadline to the final framing inspection (earlier in the construction process), so that any issues can be resolved before a homebuyer is expecting to move in, avoiding impacting the future resident or the jurisdiction appearing to be the problem if there is a hold-up at C of O.

Utilization

Many of the jurisdictions that responded receive a small number of deferral requests annually (Cornelius and Wilsonville have used their program twice, Pendleton uses it roughly once every ten years). However, Madras, which allows deferral for all residential development, saw a steady decrease in deferral requests over the last three years, where nearly half of all SDC payments were deferred. In its program history, Madras has seen 187 total deferrals and five in 2022, mostly for subdivisions. In Tigard, Sherwood, and Wilsonville deferrals were more likely to be taken by large developments due to deferrals not being advertised and/or eligibility criteria.

Administrative Time and Costs

All jurisdictions noted an increase in administrative effort associated with the deferral program, though some said it was a major increase and some said it was less than an hour of staff time. Tasks involved in the deferral process include reviewing and approving the deferral request, filing a lien (if required), communication between agencies or departments regarding the

²³⁸ Liens are legal rights to property by creditors. Liens typically remain in effect until the debt obligation is satisfied and allow the creditor to use the property as collateral if the debt obligation is not fulfilled.

application, tracking status through the development process, and closing out liens or updating permit systems when SDCs have been paid. In Madras, certificates of occupancy are granted by the county, so the process requires an additional level of coordination. Jurisdictions reported that deferral requests can take anywhere from 15 minutes to 7 hours per request. Two smaller jurisdictions use paper filing and mentioned if the number of deferrals increased, they would need to move to an electronic tracking system. In Redmond, the staff burden made the program cumbersome to administer (staff reported it was used frequently), which was one reason the City went on to sunset the program. However, Tigard and Veneta report the additional time spent on deferral is negligible.

There were also costs associated with follow-up and enforcement of payment in some cases. In Wilsonville, one notable non-payment dispute took four years to litigate, which led the city to end the program in 2019 during their SDC code update (see below).

Non-Payment

Three of the seven jurisdictions that provided detailed information reported instances where follow up or enforcement was necessary:

- In Sherwood, one development remains vacant with outstanding fees. (While staff didn't specify, this is presumably a commercial development, given that it is unlikely an apartment or single-family home would be completed but unoccupied for a long period of time.)
- Wilsonville has had at least two instances where deferrals for commercial developments have resulted in disputes with developers who sought to renegotiate the terms of the deferral agreement.
- In Madras, a few deferrals (out of over 100) required follow up at the one-year deadline (perhaps because this is an arbitrary timeline relative to the construction timeline), but did subsequently pay upon follow up. The City noted that one developer in particular had sought to avoid payment. This was the only nonpayment issue attributed specifically to residential development.

Key Findings

The two key concerns with deferrals are administrative burden and nonpayment. Take-aways related to these concerns are summarized below.

- **Administrative Burden:** The responses suggest that administrative burden can be quite variable depending on a jurisdiction's permitting system and deferral procedures. For jurisdictions where the program is broadly available and well-understood within the residential development community, the volume of deferral applications can be challenging due to the total amount of staff time required. In some communities, some of this staff time is linked to filing liens, which are more time consuming to establish and remove, but give the jurisdiction more leverage if there is a nonpayment issue.

Streamlining seems to have helped some jurisdictions to an extent, but there are limits to the ability to streamline if a jurisdiction must coordinate with other agencies (e.g., the county) or does not have an efficient permitting system. Even for jurisdictions that process few deferrals, the amount of effort for each application can be substantial for some, depending on how their program and permitting system works.

- **Nonpayment:** Many of the most egregious examples of nonpayment were linked to commercial projects. Some factors specific to commercial development may have contributed: there is greater variability in SDCs for commercial development depending on the specific end user, which may not be known in detail up front, and could increase the risk of a developer seeking to change the total SDC amount later, when tenants are known. In addition, commercial development tends to have fewer tenants and can take longer to lease up compared to apartments where there are many tenants who typically begin to move in immediately upon C of O. Issues related to residential development appear to be primarily where a time-based deadline was reached before C of O without the developer noticing immediately. This is unsurprising, given that the date may not correspond to any particular construction milestone. One jurisdiction also noted one developer who attempted to avoid requirements on several occasions.

While the negative experiences of some jurisdictions led them to advise caution related to deferrals, the successful (or mixed) experiences of other jurisdictions suggest that some of the concerns could potentially be avoided or mitigated through program requirements and eligibility criteria. However, given the variation in how jurisdictions handle permitting, it may be easier for some jurisdictions to offer deferrals than others, and even at the low end of effort per application, a broadly-used program could potentially become burdensome.

Exhibit 76. Deferral Program Feedback Summary

Source: Personal Communication with FCS GROUP, Galardi Rothstein Group, and ECONorthwest; U.S. Census Bureau (2021).

Color coding key: blue = positive experience, yellow = mixed experience, orange = negative experience

City (Population)	Eligibility Criteria	Timing	Total Deferrals	Administrative Burden	Uses a Lien?	Charges Interest?	Non-Payment Cases
Veneta (5K)	Anyone building a new home	Due by Final Inspections and/or Certificate of Occupancy	Not specified, but has been used.	A little extra time for form and lien	Yes	No	None identified
Tigard (55K)	Any development upon request (used to limit to projects with SDCs higher than for single family detached; not advertised)	Due by Certificate of Occupancy	Used some by larger developments and subdivisions.	15-20 minutes per deferral for initial permit, sometimes additional time after initial review. Don't have a great way to track deferrals in the system—could be more streamlined.	No	No	None
Cornelius (13K)	Only for non-profits developing affordable housing.	Due by Certificate of Occupancy	2	7 hours per deferral. If volume of applications increases, will need new system.	No	No	None
Madras (7K)	All new residential development	Due by Certificate of Occupancy or 1 year whichever comes first	187 total, 5 in 2022. Mostly subdivisions.	3+ hours per deferral for paperwork, filing lien; additional time for monitoring and follow up, checking sale price of the house ²³⁹ . Was very time consuming at beginning but have streamlined process.	Yes	No	A few deferrals went past 1-year deadline but paid on follow up. Some developers (one in particular) “try to creatively avoid payment” of the SDCs.
Sherwood (20K)	Only if the total City SDCs (Transportation and	Certificate of Occupancy	Common for large developments,	Less than 3 hours per permit (total, for	No	No	One property stands vacant with

²³⁹ Madras provides SDCs reductions for single-family dwellings based on the sale price of new homes.

City (Population)	Eligibility Criteria	Timing	Total Deferrals	Administrative Burden	Uses a Lien?	Charges Interest?	Non-Payment Cases
	Parks) are more than \$50,000.		especially if expecting SDC credits	processing, signatures, and tracking).			outstanding SDC fees.
Wilsonville (26K)—program no longer offered, responses reflect prior program	[no current program—prior eligibility criteria not provided, but applied to at least some commercial development]	Typically drafted to be one year or less. Not tied to Certificate of Occupancy.	Used infrequently, generally large commercial development. Two that staff remember.	Much staff time required for litigation.	-	-	Both recent commercial developers did not or could not pay on time, tried to renegotiate terms. One resulted in 4-year litigation with ruling in favor of City.
Redmond (35K)—program no longer offered, responses reflect prior program	Any development that owed SDCs.	Due by final inspection or within 9 months of the date of the agreement.	Program used a lot. Mostly residential, some commercial.	Much staff time required for processing forms, getting things notarized, verifying payment. Many parties involved (Finance, City Records Office, Building Department) Became too much of an administrative burden to sustain—sunset the program.	Yes	No	-

Note: Dashes indicate respondent did not address topic.

Tentative Planning Commission Work Program

(Scheduling and timing of agenda items is subject to change)



July 8, 2024

Work Session

- Water System Master Plan Update (*Carryover from June 24, 2024 work session*)
- Public Outreach Plan and Web Updates for City Center Revitalization Plan

July 22, 2024

Work Session

- Work Session on File# 1-CP-24/1-Z-24, Implementing the Yaquina Bay Estuary Management Plan
- Updated Schedule for South Beach Island Annexation Project

August 12, 2024

CANCELLED

August 26, 2024

Work Session

- Comprehensive Plan Streamlining Project Sample Chapter (Beth Young)
- Review Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) Endangered Species Act Pre-Implementation Requirements

August 26, 2024

Regular Session

- File #3-Z-23, Hearing on Amendments to Ord #2222 to Implement Adjustment Provisions of Governor's Housing Bill (SB 1537)
- File #1 CP-24/1-Z-24, Hearing on Comp Plan/Zoning Amendments Implement the Updated Estuary Management Plan

September 9, 2024

Work Session

- Review Policy/Code Options from 8/26/24 Hearing on File #1 CP-24/1-Z-24, Comp Plan/Zoning Amendments Implement the Updated Estuary Management Plan
- Implementation of Limited Land Use Decision Provisions of Governor's Housing Bill (SB 1537)

September 23, 2024

Work Session

- Review Draft Community Planning Month Proclamation
- Update on State of Oregon Housing Needs Analysis Rulemaking
- Scope of Work for Updating Newport's System Development Charge Methodology

September 23, 2024

Regular Session

- Initiate Legislative Amendments to Implement Limited Land Use Provisions of SB 1537
- Continued Hearing on File #1 CP-24/1-Z-24, Hearing on Comp Plan/Zoning Amendments Implement the Updated Estuary Management Plan

October 14, 2024

Work Session

- Meet City Manager Nina Vetter
- Placeholder for Comprehensive Plan Streamlining Project Full Document (Beth Young)
- Placeholder for Discussion on Nye Beach Parking / ePermitting Outreach

October 14, 2024

Regular Session

- Public Hearing File #1 & 2-PD-24, Wilder Remainder Phase (Planned Development, Final Development, Preliminary Subdivision Plat)
- Public Hearing File #2-SUB-24, 4-lot Townhouse Subdivision on Nye Street
- Public Hearing on File #3-NCU-24 Conversion of New Cold Box System at NW Natural LNG Plant