



FUNDING OPTIONS ASSESSMENT

Final Report | January 29, 2021



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Acronyms and Abbreviations

CIP	Capital Improvement Plan
CPR	Changed Property Ratio
CWS	Clean Water Services
EMP	Employees
FOA	Funding Options Assessment
GO	General Obligation
LID	Local Improvement District
MSTIP	Major Streets Transportation Improvement Program
SCM	South Cooper Mountain
SDC	System Development Charge
TDT	Transportation Development Tax
THPRD	Tualatin Hills Park & Recreation District
TSDC	Transportation System Development Charge
TUF	Transportation Utility Fee
UGB	Urban Growth Boundary



Executive Summary

Purpose

The purpose of this Funding Options Assessment (FOA) is to:

- Evaluate likely funding needs to build the “backbone” infrastructure that will serve and enable future development in Beaverton’s Cooper Mountain Community Plan area;
- Document existing funding sources for this infrastructure and provide preliminary revenue projections from those sources;
- Identify potential new funding sources to consider;
- Summarize what has and hasn’t worked well for infrastructure funding in other newly developing areas; and
- Lay out other considerations in evaluating funding options for inclusion in the Funding Plan.

This document is a stepping-stone in the process of producing an Infrastructure Funding Plan—the document that will set the direction for funding the infrastructure needed for development in the Cooper Mountain Community Plan area. The Infrastructure Funding Plan will be produced and adopted as part of the Community Plan, when there is more information about infrastructure costs and following input from Council and stakeholders regarding the considerations and options laid out in this document.

Key Findings and Opportunities

1. While collector roads, trails, and neighborhood parks may be delivered through private development, a number of key infrastructure projects will need to be public-sector led.

Private-sector led infrastructure is generally required as a condition of development, with cost-sharing (e.g., System Development Charge (SDC) credits) to cover the difference between the individual developer’s share of the cost and the full cost of the project. (Local roads and utility lines to serve a given development are typically built by development as well but are not included as part of the “backbone” infrastructure addressed in an Infrastructure Funding Plan.) This approach has worked reasonably well for certain kinds of on-site infrastructure where costs are reasonable, credits/cost-sharing are calibrated appropriately, and the facility can be built in phases. In the case of Cooper Mountain, collector roads and community and regional trails are good candidates for a private-sector led approach. Neighborhood parks may be private-sector led if cost-sharing issues can be resolved through the Funding Plan.

Public-sector led infrastructure projects are generally programmed into a capital improvement plan and may draw on a mix of funding sources, including some that are derived from development (e.g., SDCs). The Cooper Mountain Community Plan will include a number of important projects that will likely need to be public-sector led, such as the realignment of 175th Avenue at “the kink”, realignment of Grabhorn Road, a



segment of a new north-south neighborhood route / collector road across McKernan Creek, a community park, major sanitary sewer lines, a sanitary sewer pump station at Tile Flat Road, and a proposed "Resilient Stream Corridors" concept being explored by the project team. These projects require a public-sector led approach because they have benefits that extend beyond any individual development, are too costly for a private-sector led approach, will likely be built prior to development, require property acquisition across properties that may not develop right away, and / or cannot be built in segments or phases.

2. Existing funding sources that are already in use in Beaverton and Washington County will generate substantial revenue.

The existing sources that could fund needed infrastructure in Cooper Mountain include System Development Charges (SDCs) for parks, water, sanitary sewer, and storm sewer; Transportation Development Tax (TDT) and Washington County's Major Streets Transportation Improvement Program (MSTIP) for transportation; utility rates for water, sanitary sewer, and stormwater; and developer contributions. Based on the anticipated development in Cooper Mountain and existing rates, future development in Cooper Mountain could generate roughly:

- \$43m in parks SDCs
- \$28-29m in water SDCs
- \$21-22m in sanitary sewer SDCs
- \$3-4m in storm sewer SDCs
- \$28-32m in TDT

New development in Cooper Mountain will also generate new property tax revenue as well as new utility ratepayers, which will increase revenue to existing funding sources that may be available to Cooper Mountain infrastructure: MSTIP (which is an allocation of Washington County's property tax revenue) and water, sewer, and stormwater utility rates (which are also used to maintain levels of service and ongoing maintenance).

3. Existing funding sources may be sufficient for some infrastructure types, though challenges remain.

Costs of needed improvements are not yet known for most infrastructure systems, but initial indications provide a foundation for identifying areas that are likely to need the most attention in the eventual Funding Plan. To date, the project team has learned that:

- Existing funding sources and financing tools may be sufficient for **water** infrastructure.
- For **sewer**, where responsibilities are shared between Clean Water Services (CWS) and the City, existing funding sources are likely sufficient for CWS's responsibilities, but not for City responsibilities given current cost-sharing arrangements.
- For **parks**, SDC funding through Tualatin Hills Parks and Recreation District (THPRD) will likely be sufficient, over the long term, given that the parks SDC rates and project list are being updated at present and will include parks needed within Cooper Mountain. However, the key challenge for parks is timing: land



acquisition needs to occur prior to or concurrent with development, and park improvements should not lag too far behind. Financing strategies may be needed by THPRD to address challenges related to the timing of available funding.

- **Stormwater management**, particularly if addressed through a novel Resilient Stream Corridors approach, is likely to need solutions in the Funding Plan.

4. New funding sources will likely be needed for transportation.

Initial cost estimates for new transportation facilities and improvements are available, but there is more work to do to determine which projects are necessary to enable development in Cooper Mountain. Until that information is available, an assessment of the funding gap would oversimplify the transportation funding needs and not be helpful. However, based on other infrastructure funding plans for similar areas, transportation is likely to be the system with the greatest funding gaps.

Some of the biggest public-sector led transportation projects may be able to obtain partial funding from MSTIP or regional/state/federal grants, if there is enough consensus around their importance. Existing funding sources will cover a portion of transportation project costs. However, additional funding sources are likely to be needed, such as a supplemental transportation SDC or Local Improvement District. Initial estimates for these tools suggest that with costs similar to those imposed in other growth areas, they could generate \$27-41m through a supplemental transportation SDC and perhaps \$10-20m for a Local Improvement District (LID; this would likely need to replace some of the transportation SDC costs and revenue to avoid potentially imposing too high a cost on development if the LID is placed prior to the property being sold to the consumer). Between these two options, the LID offers greater potential for accelerating funding for key projects, though it can be much more complex to administer. The Funding Plan should consider the use of these tools (and others if needed) to fund critical transportation projects. It should also consider the potential role of reimbursement districts to address timing issues with paying for shared infrastructure. For transportation, in particular, the Funding Plan should identify recommended funding sources for specific projects or groups of projects and take SDC/TDT credit policies into consideration.

5. Simply matching new and existing funding sources to projects is insufficient to achieve the goals of the Community Plan; the City must also consider equity, development feasibility, and housing affordability.

Selecting the mix of sources and pairing them to infrastructure projects will require careful consideration. Given the City's racial equity goals and intent to create an inclusive community in Cooper Mountain, the City will need to go beyond an evaluation of when funds will be available and the legal constraints and limitations on the use of funds. It will need to consider who will ultimately bear those costs and the implications on development outcomes and community development goals.

While infrastructure costs are only directly passed on to future renters and homebuyers to a limited degree (they are typically absorbed in large part by the landowners through lower land prices), they do influence the type and price-points of housing that



are financially viable for development. This can limit the range of housing options produced in a new growth area. Allowing more density can help spread fixed costs and reduce costs per unit to some extent, but additional interventions will be needed to support development of lower-cost housing options that can help create a more inclusive community.

This suggests an approach that includes:

- Development-derived sources for projects that primarily serve Cooper Mountain, with rate structures that offer savings to lower cost housing types and regulated affordable housing to the extent that they create less demand on the system in question (e.g., due to lower vehicle ownership);
- Contributions from other (non-development-derived) City-/County-/region-wide sources for projects that offer broad benefits to existing residents and/or businesses beyond Cooper Mountain;
- Limiting reliance on flat utility rates that tend to be regressive and can disproportionately impact lower-income households (usage charges tend to be less regressive); and
- Targeted funding contributions from other (non-development-derived) existing or new sources to reduce costs for affordable housing and potentially other development that supports the City's equity goals.

In preparing the Funding Plan, the City should also continue to work with developers and other public-sector partners to identify creative solutions, focus on strategies to deliver core projects in a timely manner, and maintain flexibility to respond to changing conditions.



Introduction

About the Funding Options Assessment

The Cooper Mountain Community Plan will refine planned land uses, infrastructure needs, and policies for the Cooper Mountain planning area shown in Exhibit 1. The final Community Plan will include an Infrastructure Funding Plan that lays out how major needed infrastructure improvements will be paid for. As an interim step in the process of developing the Infrastructure Funding Plan, the project team (ECONorthwest, in collaboration with Tiberius Solutions, Angelo Planning Group, consultants working on the infrastructure analysis, and City staff) prepared a Funding Options Assessment (FOA) that will inform the eventual Funding Plan.

The FOA documents detail funding mechanisms and cost-sharing policies currently in use by the City as well as the many overlapping service providers that will be involved in providing infrastructure to the area (e.g., Washington County, Tualatin Hills Park & Recreation District (THPRD), and Clean Water Services (CWS)) and identifies potential new funding tools to consider in Cooper Mountain. It also includes a review of the team's prior work on infrastructure funding for South Cooper Mountain to understand what the City of Beaverton would like to do differently this time.

The FOA includes:

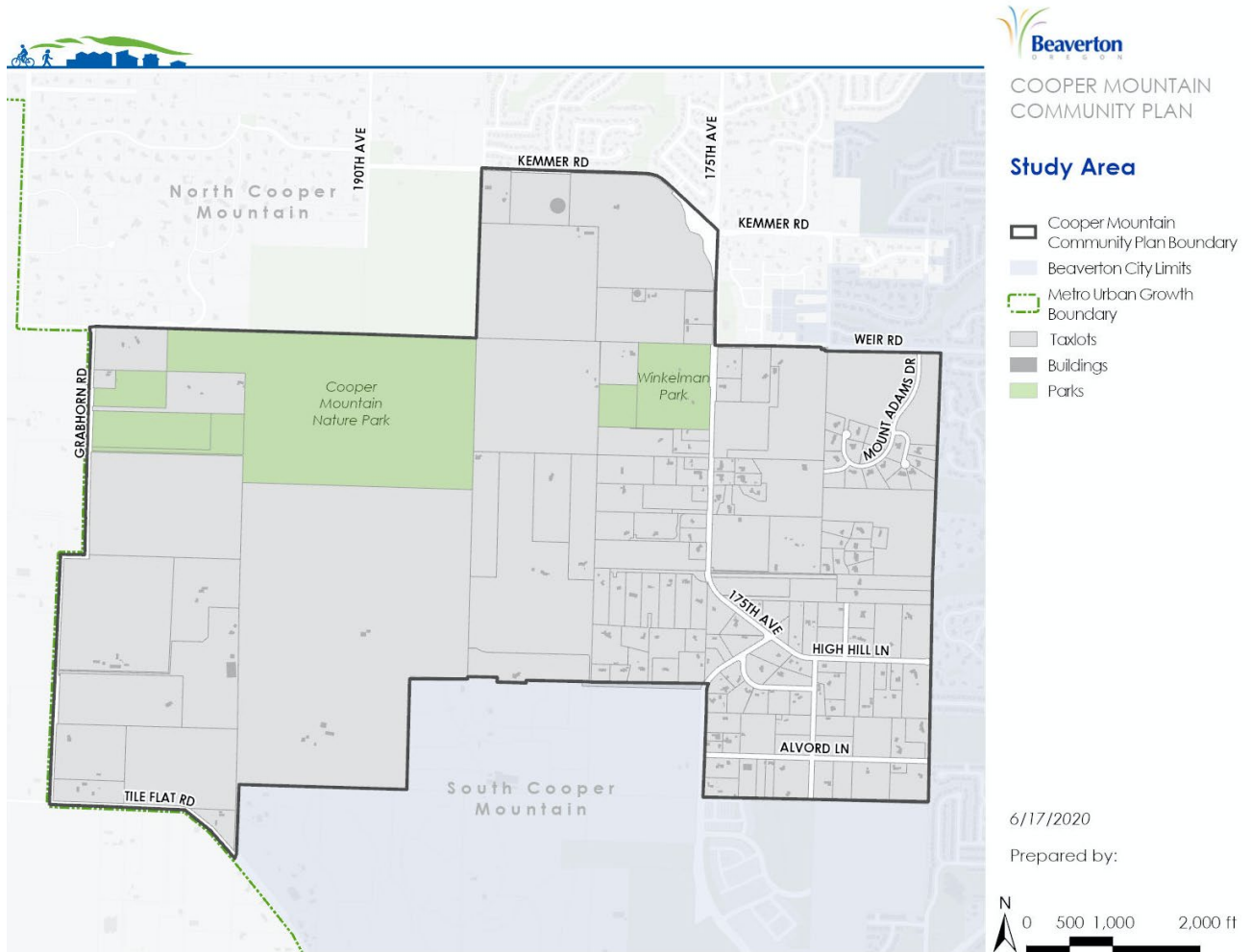
- **Lessons Learned:** A summary of what has and has not worked well in past infrastructure funding plans and in the delivery of planned infrastructure, including in South Cooper Mountain.
- **Known Infrastructure Projects and Infrastructure Funding Needs:** An outline of the infrastructure projects needed to unlock new development in South Cooper Mountain, organized by infrastructure type. This section also includes initial estimates of transportation project costs to understand the order of magnitude funding gap that will need to be overcome.
- **Existing Funding Sources and Revenue Projections:** A description of funding sources currently available to fund infrastructure in Cooper Mountain as well as an initial projection of revenue from these sources.
- **Most Promising New Funding Sources for Further Exploration:** An overview of the tools with the best potential to address the preliminary funding gap for transportation along with timing challenges in generating needed funds for infrastructure investments.
- **Funding Options Evaluation:** An evaluation of the existing and most promising funding sources identified in the FOA across several evaluation criteria.
- **Appendix A: Lessons Learned:** More details describing what has and has not worked well in past infrastructure funding plans and in the delivery of planned infrastructure.
- **Appendix B: Revenue Projection Details:** Detailed revenue projections and documentation of funding assumptions for existing revenue sources.
- **Appendix C: Broader List of Infrastructure Funding Tools:** A discussion of a range of sources that other jurisdictions have used to pay for infrastructure. This appendix documents the funding sources that were not short-listed for further exploration in the FOA.



- **Appendix D: Initial Transportation Project List:** An initial list of transportation projects in and around Cooper Mountain based on transportation planning work to date.

Exhibit 1. Cooper Mountain Planning Area

Source: City of Beaverton.





Overview: Infrastructure Delivery Approaches

This document (and the later Infrastructure Funding Plan) are focused on infrastructure that serves multiple developments, as local roads and the local infrastructure systems to serve individual developments are the responsibility of the land developers.

Infrastructure that serves multiple developments can include:

- **Streets:** neighborhood routes, collectors, and arterials
- **Water and sewer:** trunk lines, pump stations, etc.
- **Stormwater:** regional detention facilities, resilient stream improvements with integrated stormwater management (developers are responsible for water quality facilities and/or Low Impact Development approaches for their developments)

At the most basic level, there are two high-level approaches to delivering infrastructure that serves multiple developments:

- **Private-sector led:** Require land developers to build the infrastructure, and offer cost-sharing approaches (e.g., System Development Charge credits or reimbursement districts) to cover the difference between the individual developer's share of the cost and the full cost of the project. The availability and amount of credits depend on several factors, including:
 - **Location** (on-site vs off-site)
 - **Typology** (e.g., arterial, collector, or local street)
 - **Inclusion on the relevant project list** (e.g., listed on the Systems Development Charge (SDC) and/or Transportation Development Tax (TDT) project list)
 - **Credit policies** of the service provider for the SDC (or TDT)
- **Public-sector led:** Using funds from whatever sources are available and applicable (often including sources derived from development, such as System Development Charges), the public sector (City, County, or service providers) designs and builds the needed facilities.

Certain infrastructure funding tools and strategies are better suited to a private-led approach than a public-led approach, and vice versa. Thus, understanding which infrastructure projects are likely to be private-sector led versus public-sector led is an important early step developing the Infrastructure Funding Plan.



Lessons Learned

South Cooper Mountain and other recent urbanizing areas have many similarities and some differences in how they have funded and delivered shared infrastructure. This section identifies what has and has not worked well in past infrastructure funding plans and in the delivery of planned infrastructure.

Successes and Challenges: Private-Sector Led Infrastructure Funding and Delivery

Certain types of infrastructure have been successfully delivered through a private-sector led approach in South Cooper Mountain as well as other developing areas. This approach works best where:

- **Projects can be phased:** Developers often only deliver a portion of an infrastructure project needed to serve development on their site specifically. For some facilities, it is either impossible or undesirable to deliver the project in pieces, so allowing developers to build as they develop is not an option. Larger facilities that serve multiple developments and those that must be built at one time can be too costly for a single developer to construct, or may extend beyond the boundaries of the development, requiring land that the developer does not control.
- **Costs are within developers' ability to pay and aligned appropriately with credit amounts:** When up-front costs are significant or when the credit formula does not cover a high enough share of the project costs, developers may be unwilling to build the infrastructure, or may be unwilling to move forward with the development at all. Conversely, when credits account for much of what developers owe in SDCs (or TDT), this can leave little to pay for other projects, such as larger off-site infrastructure needs.

Examples where this has been largely successful include:

- In South Cooper Mountain, development has been or will be required (as a condition of approval) to build many of the on-site collector roads, with TSDC and TDT credits covering most of those costs.

Examples of issues with this approach include:

- The TSDC in South Cooper Mountain, while it has contributed to successful developer-led infrastructure delivery, has mostly been allocated to credits, leaving little available for public-sector led projects.
- In South Cooper Mountain, there were instances where developers wanted to develop property that would require extending infrastructure across a property that was not yet developed in the development process, creating phasing challenges.
- Contractors sometimes installed non-approved components and "asked for forgiveness" later, putting the City in a difficult position of having to decide whether to force the developer to remove and replace those components.
- In Pleasant Valley, the Gresham city council worked out an infrastructure agreement with several developers in 2007 in which developers would pay up front for



infrastructure and be reimbursed through SDC credits. However, the Great Recession stalled development as key developers filed bankruptcy, and the City had to revisit its funding plan, potentially moving to a public-sector led approach.¹

Successes and Challenges: Public-Sector Led Infrastructure Funding and Delivery

Public-sector led projects must typically compete for limited funding resources. In most cases, the public sector will seek to leverage or maximize federal, state, and regional funds; however, these resources are highly competitive. Common local sources include TDT, Major Streets Transportation Improvement Program (MSTIP) funds, SDC revenues, and revenue from ratepayers. Funding public-sector led projects with existing sources that are not dedicated to the specific area requires prioritizing them over competing projects.

An alternative to relying on existing local sources is to implement new, area-specific dedicated funding sources. Building public-sector projects with area-specific dedicated funding sources can also be a challenge because of the increased costs of development, and a potential mismatch between timing of funding availability relative to when infrastructure is needed to catalyze development.

Examples of where a public-sector led approach has been largely successful include:

- Prioritizing funds from existing sources: In South Cooper Mountain and River Terrace, widening of SW 175th Avenue and Roy Rogers Road was funded through the MSTIP program, and was built prior to much of the development in South Cooper Mountain and River Terrace taking place.
- New, area-specific funding source: The City of Hillsboro implemented a Local Improvement District for transportation improvements in South Hillsboro that land developers could opt into in exchange for reduced supplemental transportation SDCs. Several major developments opted in and agreed to fund four key transportation projects totaling over \$26m needed to enable development in the area.² While administration has been complex, this approach succeeded in delivering back-bone infrastructure earlier than would have been possible with supplemental SDC funding alone.

¹ City of Hillsboro, "Development Activity in UGB Expansion Areas," report for Metro, 4/26/2016. <https://www.oregonmetro.gov/sites/default/files/2016/04/26/UGB%20Report%20for%20Metro%20FINAL%20-%20combined%2004%2026%202016.pdf>

² South Hillsboro Local Improvement District Frequently Asked Questions, Version 1, 1/1/2018. <https://www.hillsboro-oregon.gov/home/showdocument?id=22897>; Letter to South Hillsboro property owners: "South Hillsboro Finance Plan update, Petition to form a Local Improvement District," January 8, 2016. <https://www.hillsboro-oregon.gov/home/showdocument?id=8693>



Examples of issues with this approach include:

- **Prioritizing funds from existing sources:** For South Cooper Mountain, the City of Beaverton had hoped that Washington County would include realigning SW 175th Avenue at “the kink” in the MSTIP-funded projects, but the project was not prioritized by the County at that time, illustrating the competitive nature of this funding source and the uncertainty of securing funding even for potentially eligible projects.
- **New, area-specific funding source:** In North Bethany, Washington County adopted a special service district for roads with an additional assessment to fund public-sector led transportation infrastructure improvements, along with a supplemental transportation SDC and use of MSTIP and TDT. While the new assessment district is generating funds, they are accruing slowly even with much development complete, and have made limited contributions to funding public-sector led transportation projects. The supplemental TSDC and other sources have made a larger contribution, and many key projects have been private-sector led.³

Keys to Developing a Successful Infrastructure Funding Plan

The project team summarized the following takeaways based on comments from listening sessions with City of Beaverton staff and with developers as well as content analysis of existing funding plans developed for new urban areas in the region.

- **Leverage City of Beaverton staff and developer expertise to find creative solutions.** The City of Beaverton should leverage their relationships with partners, continuing to provide a channel for open communication. Bringing diverse perspectives to the table can prompt innovative ideas and air concerns that will enable stronger solutions. Further, creative solutions require buy-in to safeguard long-term support for strategies documented in the plan.
- **Emphasize the importance of implementation.** Any strategy documented in the Cooper Mountain Funding Plan should strive to get core infrastructure projects delivered in a timely manner. Existing revenue and new funding mechanisms should prioritize key projects needed at the front end and backbone infrastructure needed to unlock development. If new funding tools are needed to address funding gaps, the analysis must consider *when* those tools would produce needed revenue. Funding options that enable projects to get built up front (and paid back over time) may become a key strategy in the Funding Plan.

³ Washington County Land Use & Transportation website, “North Bethany Funding,” accessed 12/2/2020.

North Bethany County Service District for Roads, Presentation for NBCSDR Budget Subcommittee Meeting Nov. 9, 2018, “Project Status Updates and FY 19-20 Recommendations,” <https://www.co.washington.or.us/LUT/upload/North-Bethany-CSD-Subcommittee-Pres-11-09-18.pdf>



- **Maintain flexibility to account for uncertain, future conditions.** Over the planning period, financial and economic conditions could change—new revenues from grants could become available, new tools requiring a public vote could fail, and/or Council action / policy intervention (not anticipated in this Plan) could alter the course of needed development. The Cooper Mountain Funding Plan should be designed to be implemented flexibly.

Appendix A presents additional lessons learned from South Cooper Mountain and other communities.



Infrastructure Projects & Infrastructure Funding Needs

This section identifies infrastructure project needs, by infrastructure type, based on the infrastructure analysis conducted through the end of October 2020 and project team discussions to date.

Roads

Transportation projects are anticipated to represent the most costly infrastructure project category in Cooper Mountain. Several projects have been identified that are likely to be public-sector led, including:

- **175th Avenue “kink” and urban arterial upgrades** (3-lane arterial with bicycle/pedestrian facilities)
- **Grabhorn Road realignments and urban arterial upgrades** (3-lane arterial with bicycle/pedestrian facilities)
- **Creek crossing and middle segment of “road corridor 1”** (portion of a new, planned collector road where there is unlikely to be adjacent development, and costs will be higher due to a creek crossing)

Other projects, including new neighborhood routes and collector roads through developable areas, are assumed to be private-sector led. See Appendix D for a table of projects and preliminary cost estimates.

Preliminary estimates for the cost of transportation projects (excluding shared-use paths) within Cooper Mountain add up to approximately \$103m.

Trails

The project team anticipates the following categories of trail projects in Cooper Mountain:

- Regional trails
- Community trails
- Nature trails

The trail system in South Cooper Mountain and other newly urbanizing areas has been largely built through a private-sector led approach. All trails in Cooper Mountain are identified in the updated THPRD SDC project list. While only about 40% of the cost of trails are SDC credit eligible overall, THPRD applies this limit as a district average, and allows for SDC credits for the full cost of trails built with new development. In fact, private-sector led delivery is so important to THPRD in this context that THPRD has offered SDC credits based on public-sector costs—typically 25-35% more than what the project costs the developer. One possible exception to the reliance on private-sector led delivery is that nature trails in stream corridors may need to be public-sector led due to lack of adjacent development and need for coordination with other agencies around stream corridor improvements.



Two planned shared-use paths in within Cooper Mountain included in the preliminary transportation cost estimates total roughly \$3m. Cost estimates for other trails are not yet available.

Parks

The project team anticipates two categories of park projects in Cooper Mountain, as outlined below. Parks in Cooper Mountain are planned to be included in the updated THPRD SDC project list.

- **Community park:** THPRD is planning for one community park, about 20 acres in size, consisting of mostly open spaces (although not necessarily fields). Funding and delivery are anticipated to be public-sector led. The project is included on the preliminary parks SDC project list for the current update process at an estimated cost of just over \$27m.⁴
- **Neighborhood parks:** Four neighborhood parks in the Cooper Mountain area are included in the preliminary THPRD SDC project list for the current update process at a total cost of roughly \$14.5m.⁵ THPRD prefers for neighborhood parks to be delivered in cooperation with development through a private-sector led approach. However, the cost of building out these parks has been an issue with this approach, even with generous SDC credit policies. This issue will need additional work in the Funding Plan.

Preliminary estimates for the cost of park projects in Cooper Mountain add up to \$41.5m.

Stormwater

The project team is developing a sub-basin strategy that considers use of resilient stream corridors for stormwater management. This approach would include habitat restoration, stream restoration, integrated stormwater management, and trails. This type of project may need to be public-sector led as it would need to be delivered top to bottom of the stream corridor, not built incrementally. While it would ideally precede development to address enhanced stormwater management and resilience practices and allow developers to build smaller individual stormwater management systems, it may be easier to implement after developers have set aside vegetated corridors in open space tracts or easements. Potential public sector partners include CWS and THPRD as well as Metro who has interest in acquiring stream corridors to extend its Nature Park.

⁴ Appendix B, SDC Project List. <http://www.thprd.org/pdfs2/document4510.pdf>

⁵ Appendix B, SDC Project List. <http://www.thprd.org/pdfs2/document4510.pdf>



Preliminary estimates for the cost of stormwater projects in Cooper Mountain are not available at this time, but an additional funding mechanism is likely to be needed for any shared stormwater facilities.

Sewer

Anticipated sanitary sewer projects include:

- **Sewer trunk lines:** The area generally west of 175th Avenue will require major gravity lines down the hill to a pump station; a force main will bring sewer flows back up to tie into existing sewer lines. Under current cost-sharing policies, developers pay for sewer pipes that are 8" diameter or less, the City covers the cost of upsizing from 8" to 12", and CWS covers the costs for pipes larger than 12".
- **Tile Flat Pump Station and Force Main:** The pump station and force main will be needed to serve much of the development west of 175th Avenue. CWS has this project on its Capital Improvement Plan (CIP) project list, with funding anticipated in FY 2023-2024.
- **Existing sewer line upsizing:** Areas that drain to the Summer Creek basin may necessitate the upsizing of sewer lines downstream that were never sized for this UGB expansion. This cost will likely be the City's responsibility rather than CWS based on existing sewer line sizes.

Preliminary estimates for the cost of sewer trunk lines in Cooper Mountain are not available at this time, but the cost of the pump station and force main are estimated at \$3.8m in the CIP and anticipated to be funded by CWS with existing sources.

Water

Major new water lines will be needed to serve development, but funding is not expected to be a primary issue. It is anticipated that water infrastructure will be public-sector led, with infrastructure funded with water rates and financed through bonds. The City is anticipated to be the water service provider for areas that annex to the City and develop, though existing residents would continue to be served by TVWD unless they annex. Preliminary estimates for the cost of water projects in Cooper Mountain are not available at this time.

In addition, the City of Beaverton has been investing in a "purple pipe" non-potable water distribution system in the South Cooper Mountain area. The City has not developed a specific purple pipe expansion program for the Cooper Mountain area outside SCM, but future purple pipe system expansion could potentially deliver non-potable irrigation supplies in areas of future development on Cooper Mountain. While some non-potable system components were recently added to the water SDC project list, cost-sharing policies may need to be addressed if the distribution system is expanded.



Existing Funding Sources & Revenue Projections

The infrastructure funding options documented in this section include revenue sources that are *currently* available to fund infrastructure projects in Cooper Mountain. These existing sources derive from the City of Beaverton and relevant service providers.

This evaluation considers only funding sources that pay for infrastructure that adds capacity to support new growth and that serves a specific area. It is also focused on infrastructure that serves multiple developments, as the onsite infrastructure needs for a single development (e.g., local roads, water and sewer lines that serve only one property) are typically paid for in full by the developer.

Existing Funding Sources Overview

The primary existing sources of funding for infrastructure needed to support new development across most infrastructure categories in Beaverton are outlined below. These are described generally below, with details of their use for specific infrastructure funding categories following.

- **System Development Charges (SDC).** SDCs are fees paid by land developers and are intended to reflect the increased capital costs incurred by a municipality or utility as a result of a development. Existing SDCs from service providers who will serve Cooper Mountain include:
 - THPRD Parks SDC
 - City of Beaverton Water SDC
 - CWS/City of Beaverton Sanitary Sewer SDC (City retains 4 percent)
 - CWS/City of Beaverton Storm Sewer SDC⁶
- **Transportation Development Tax (TDT).** TDT is conceptually similar to an SDC but was voter approved and imposed on all development countywide.
- **Major Streets Transportation Improvement Program (MSTIP).** MSTIP is a cost-sharing program that uses property tax revenues received by the County to fund major transportation improvements across the county. Eligible projects are those that: (1) improve safety; (2) improve traffic flow/relieve congestion; (3) are located on a major road used by many residents; and (4) address demands for cars, trucks, bicycles, pedestrians, and/or transit. MSTIP projects are chosen by the Board of County Commissioners based on recommendations from city and county officials, public input, and consideration of geographic balance to ensure all parts of the county benefit from the projects.

⁶ There is also a Storm Water Quality Fee-In-Lieu and Stormwater Quantity/Hydromodification Fee-In-Lieu if on-site facilities are not provided, but these are not SDCs. They are typically not applicable for new greenfield development, though that could change if the resilient stream corridors concept is implemented, as discussed further below.



- **Developer Contributions:** Developer contributions are payments or in-kind work paid by land developers to fund infrastructure that is needed to develop their properties. No specific dollar amount is projected for this source, but it typically makes up the non-credit-eligible portion of private-sector led projects. In addition to exactions required as a condition of development, development agreements can be used in some situations to establish public-private partnerships that include negotiated developer contributions for infrastructure or public amenities.
- **Utility Rates.** Water, Sewer and Storm water utility rates are generally charged to all customers connected to a given system. All area service providers that charge on-going rates also charge SDCs for new development, and SDCs are the primary source of revenue for projects to serve new development. However, rates can supplement SDCs and fund infrastructure that also serves existing customers. Existing utility rates include:
 - **Water rates.** Water rates consist of a fixed fee in addition to consumption charges that vary with usage. The City of Beaverton bills for water each month while TVWD bills every-other month. Revenues are used to operate, maintain and update the water treatment plant, transmission and distribution systems, including repair and installation of water mains, maintenance of individual water services and meters, and construction and upkeep of reservoir and well sites, in addition to paying debt service for major capital improvements that require funding beyond the capacity of SDC balances.
 - **Sewer rates.** Sewer rates consist of fixed fees and volume charges imposed by both Clean Water Services (CWS) and the City of Beaverton. Revenues are used to process wastewater, maintain the wastewater treatment plants and the sewer conveyance and distribution systems. The sewer rates are split between a regional portion and a local portion, with 84% representing the regional portion, transmitted to CWS, to pay for regional assets such as the treatment plants, and 16% for the local portion. In addition, the City of Beaverton adds a \$2 surcharge to the local portion for local needs.
 - **Surface Water Management Rates.** Clean Water Services imposes a surface water management fee to maintain storm runoff facilities (including ditches, street drains, and catch basins), to provide street sweeping services, and to help clean various streams and rivers in the area. Similar to sewer rates, these rates are split between regional responsibility and local responsibility: 25% of the monthly fee is the regional portion, transmitted to CWS, and 75% is to fund local needs. In addition, the City of Beaverton adds \$2 to this monthly fee to fund local needs.

Revenue Potential from Existing Sources: Initial Estimates

This section summarizes initial estimates of how much new funding development in Cooper Mountain is likely to generate given current funding tools, existing rates, and estimated future development.



Development Scenarios

To estimate financial capacity, the FOA relies on two primary development scenarios (see Exhibit 2). Scenarios are based on findings from the Cooper Mountain Market Study, completed as part of the broader Community Plan project. Both scenarios assume the same number of housing units will be developed in Cooper Mountain (based on the target number established by Metro as a condition of the UGB expansion), but Scenario 1 assumes a larger share of those units will be attached single-family, and multifamily units, compared to Scenario 2. Additionally, Scenario 2 assumes more retail development than Scenario 1.

Revenue projections, in upcoming sections, will be presented as a range based on the scenarios. Scenario 1 informs the low estimate and Scenario 2 informs the high estimate.



Exhibit 2. Primary Development Scenarios, Cooper Mountain

Source: Market Analysis for the Cooper Mountain Community Plan, draft September 2020.

	Scenario 1 (Low)	Scenario 2 (High)
Residential Development		
Single-family detached units	1,880	2,632
Attached units ⁷	1,128	564
Multifamily units	752	564
Commercial Development		
Retail center square feet	15,000	30,000

⁷ The Cooper Mountain market analysis identified a need for a limited number of duplexes, triplexes, and quadplexes (about 1% of total units in Scenario 1 and 0% in Scenario 2). The estimates for these housing types (in Scenario 1) were combined with the attached housing category.



Funding Estimates

Based on development assumptions highlighted in Exhibit 2 and the City's / other service providers' existing fee schedules, Exhibit 3 presents a summary of financial capacity of existing revenue sources that are primarily used to pay for capital improvements needed for new development (excluding developer contributions, which are more variable)—utility rate revenue projections are not included here. Note that not all of these funds are likely to be allocated to fund infrastructure projects within Cooper Mountain; some will likely be allocated to projects elsewhere in the jurisdiction that collected the revenue.

For more details about these projections, see Appendix B.

Exhibit 3. Revenue Projections for Existing Sources of Revenue (2020 dollars), Cooper Mountain, 2021-2041

Source: ECONorthwest.

Note: values are presented in constant 2020 dollars and rounded to the thousand.

	Financial Capacity Estimate (Low)	Financial Capacity Estimate (High)
Parks SDC (THPRD rate)	\$43,005,000	\$43,469,000
Water SDC (updated rates, Feb. 2021)	\$28,254,000	\$29,439,000
Sanitary Sewer SDC (total to CWS and City)	\$21,825,400	\$21,837,000
Storm Water SDC	\$4,056,000	\$4,225,000
TDT	\$28,377,000	\$31,932,000
MSTIP*	\$4,718,000	\$4,913,000

* MSTIP estimates reflect 25% of the additional property tax revenue to Washington County over 20 years from new development in Cooper Mountain, assuming a linear phase-in of residential development over that period and commercial development in roughly year 15. This is an estimate based on past funding allocations, but the allocation is set by the Board of County Commissioners and there is no guarantee that any particular amount will be allocated to MSTIP or to projects in this area.



Most Promising New Funding Sources for Further Exploration

This section describes new funding mechanisms that the City of Beaverton (or other parties) could use to pay for infrastructure investments in the study area. These tools are considered “new” because they are not existing citywide tools that would apply to Cooper Mountain by default; they would need to be specifically established for use in Cooper Mountain by the City Council.

While there is a long list of potential funding sources (see Appendix B), this section focuses on a short list of tools that are most applicable to Cooper Mountain. This analysis selected the following tools for evaluation because they have the most promise for generating a substantial amount of funding in a relatively short timeline and have relatively few legal and administrative challenges for implementation.

- **Supplemental System Development Charge (SDC).** A supplemental SDC is an additional one-time fee that is typically paid at the time of building permit issuance. These fees are layered on top of a City-wide SDC. These fees are paid by new development within a defined geographic area. Supplemental SDC funds may be used for SDC-eligible capital projects that increase capacity and benefit/serve the defined area. A supplemental SDC can be implemented without a public vote. The City of Beaverton imposes supplemental transportation SDCs, based on trip generation, in South Cooper Mountain.⁸ (Note that a similar outcome can be achieved through area-specific fees established through development agreements at time of annexation.)
- **Local Improvement District (LID).** An LID enables a group of property owners to share the cost of a capital project or infrastructure improvement. It is a type of special assessment district where property owners within a specific area are assessed a fee to pay investments that benefit them. The amount of the assessment must be proportional to the share of benefits that a property receives. Through the LID process, cities can offer property owners the option to finance the assessment over a longer period of time by making annual payments (typically concurrent with property taxes). A lien is placed on each benefitting property that is assessed. To implement an LID, the City must adopt an ordinance through a public hearing process and the ordinance must be supported by a majority of affected property owners. State law specifies the steps to form a LID. The City of Beaverton enables LID formation in the municipal code for a variety of infrastructure types, and has specific provisions for the use of LIDs for newly developing areas.⁹

⁸ Rates (effective 7/1/19) are \$8,968 for single-family detached homes, \$5,364 for single-family attached homes, \$5,875 for multifamily units, and variable rates for commercial development.

⁹ See Chapter 3.02: Local Improvement Procedures.

<https://www.codepublishing.com/OR/Beaverton/html/Beaverton03/Beaverton0302.html>



- **Reimbursement District.** A reimbursement district is a cost sharing mechanism, typically initiated by a developer, though it can be initiated by the local government.¹⁰ It provides a reimbursement method to the party who pays to build an infrastructure improvement that will benefit others, through fees paid by property owners at the time the property benefits from the improvement. A developer can typically apply to create a reimbursement district by demonstrating benefit to properties beyond their own. In addition, the size of the improvement must be measurably greater than would otherwise be ordinarily required for the improvement. The City is working to develop code language to enable reimbursement districts, which is expected to be adopted in 2021. CWS has an existing ordinance addressing reimbursement districts for sanitary sewer and stormwater improvements. CWS also has a specific version of a reimbursement district that allows the agency to recoup costs for publicly-funded regional stormwater facilities that serve multiple developments as development occurs that connects to the facilities.

¹⁰ Reimbursement districts can be both a funding source (if they pay for infrastructure that would not otherwise be funded) and a financing mechanism (in that they allow one party to lay claim to future developer contributions).



Funding Tools Evaluation

This section provides a more detailed evaluation of the existing funding sources, and most promising new funding sources that may be used to fund infrastructure in Cooper Mountain.

Overview

Key Concepts

There are several important considerations in evaluating whether a given funding option is appropriate to the situation. These include:

- Who pays, and is that fair, appropriate, and aligned with City goals for racial equity?
- When are funds available?
- What are the legal constraints and limitations on how funds can be used?

This section provides context for evaluation of potential funding tools for each of these criteria.

Who Pays?

Different funding tools draw revenue from different parties. However, the person who pays a tax or fee may not be the same person who ultimately bears the burden of that cost. Identifying who ultimately bears the cost of a tax is known as “tax incidence.” This is particularly relevant for costs imposed on new development, as discussed below.

For example, are paid by developers, property taxes are paid by property owners, ongoing utility rates are paid by users of that utility, and gas taxes are paid by motorists.

Developers pay for system development charges (SDCs) and other fees and costs imposed on development, but generally absorb little or none of that cost themselves.

Rather, they typically factor infrastructure funding obligations and other anticipated land development costs, along with the amount of development they expect to be able to build and the expected value and marketability of that development, into the amount they are willing to pay for land. They typically are not willing or able to accept a lower rate of return¹¹ to develop in an area with higher infrastructure costs unless those higher costs are mitigated by greater certainty (reduced risk). If the expected financial returns do not justify the risks of the investment in the development, the

¹¹Sometimes, developers use financing or financial equity sources that require a particular rate of return, which limits their ability to negotiate changes in cost structure. However, the public sector often does not have reliable information about particular developers' required or projected rate of return or their specific financial assumptions to independently evaluate whether a given cost will push returns below an acceptable threshold.



development generally doesn't move forward. Once they have purchased land based on their expected costs of development, it is challenging for developers to pay more for infrastructure without affecting their rates of return, unless they believe they can reduce costs or increase revenues (through higher sales or rental prices or more development – see next) from other aspects of their development. Thus, when costs increase unexpectedly, development sometimes stalls until market conditions can support the higher costs.

Future homebuyers and renters may absorb some of the costs if the new housing offers compelling amenities or supply is tight. People are generally unwilling to pay more to live in an area simply because it costs more to build there; however, they often will pay more if the higher cost translates to a material improvement in the quality of the housing or the neighborhood relative to suitable lower-cost options, or if there are few other suitable choices available. In the case of greenfield development, developers may anticipate being able to charge a premium to some degree if the new area offers homes or neighborhoods with particular features or amenities that make it more attractive to prospective homebuyers or renters than other existing neighborhoods, or if there is a tight market with few alternatives for prospective buyers or renters. That premium (whether due to location, amenity, or supply constraints) can help cover some increase in development costs to build in the greenfield location, and, in that sense, a portion of the cost can be passed on to future buyers or renters, but only to the degree that the market can bear.¹² Infrastructure costs can also affect the housing options available to future homebuyers and renters by constraining the range of housing types and price-points that are financially feasible. This can make housing at lower price-points (for that type of housing) more difficult to build. However, for large, fixed costs, spreading the costs across more development means that even a small premium on a per-unit basis will cover more of the total costs. This can lead developers to emphasize higher density development, such as small-lot detached housing and townhomes, which tend to be somewhat less expensive than larger-lot detached housing.

The initial property owner typically absorbs at least a portion of the costs to develop through a reduced sales price for the land, because, as noted above, the developer attempts to account for the infrastructure funding costs in establishing an appropriate purchase price. This is especially true if there is other buildable land with lower infrastructure costs within the same market area. If the property owner is unwilling to accept the price for the land, they may choose to hold the land in anticipation of a higher price later, and no development would occur. In this situation, reduced development activity could translate to reduced housing supply, which could then drive up the price for housing in the region.

¹² If the additional costs are so high that they exceed developers' perceptions of future homebuyers' willingness to pay, the financial feasibility of the development project could be at risk.



Overall, the distribution of costs will vary based on market conditions and a variety of other factors. However, when total infrastructure costs imposed on development are too high, development simply will not occur.

Funding Fairness and Equity Considerations

The concepts of fairness and equity in public finance have several dimensions, as summarized below. The relative importance of each of these considerations above will vary based on the context.

- **Benefit-Based:** linking the fee or assessment to the benefits received. Where a public good or service provides specific private benefits, this can be appropriate, but because resources are not evenly distributed, this approach can disproportionately impact those with less resources.
- **Behavior-Based:** using taxes and fees to influence behavior (e.g., imposing a cost on an undesirable action). This can be an appropriate way to address externalities (the unintended impacts that one's actions have on others), provided the goal is defensible and the tax is clearly linked to the goal.
- **Ability to Pay:** linking the amount charged to the user's financial resources and ability to pay. This can help ensure that the costs of government goods or services "bear as nearly as possible with the same pressure upon all."¹³ This is an important consideration for all funding tools, but particularly for allocating costs of goods and services that have broad benefits. However, it can be difficult to measure ability to pay (annual household income is a common proxy, but variations in what are considered essential household costs add complexity), and it does not necessarily address broader concepts of justice.
- **Distributive Justice:** structuring taxes or fees to achieve a particular redistributive goal (e.g., maximizing social welfare, minimizing the impacts of undeserved good or bad fortune, or correcting for past injustices). This may go beyond ability to pay in terms of current income to consider generational effects (e.g., wealth transfers).¹⁴

For purposes of this document, we group the benefit-based and behavior-based considerations as "funding fairness" and the ability to pay and distributive justice considerations as "funding equity".

In the context of an infrastructure funding plan for a new growth area, specific fairness and equity considerations include:

¹³ Mill, J. S. (1970) *Principles of Political Economy*. London: Penguin Books, p. 155 [Book V, Chapter. II, Section. 2]. Quoted in David G Duff, *Tax Fairness and the Tax Mix* (Oxford: The Foundation for Law, Justice and Society, 2008).

¹⁴ David G Duff, *Tax Fairness and the Tax Mix* (Oxford: The Foundation for Law, Justice and Society, 2008). Available online at: https://commons.allard.ubc.ca/cgi/viewcontent.cgi?article=1103&context=fac_pubs



- How much growth should be asked to pay for itself? (Are current residents in a city “held harmless” in paying for the infrastructure needed for future residents?)
- How can funding mechanisms be designed to support goals related to housing affordability and inclusive neighborhoods? (For example, does imposing special assessments on new housing make it unaffordable for low- and moderate-income households?)
- How costs are shared geographically relative to benefits? (For example, are those with homes immediately adjacent to a park asked to pay more to support park development or maintenance? If a collector is needed to allow development in a particular area or neighborhood, should development only within that area pay?)

Pursuing racial equity means that the history of racially discriminatory development and housing policies in this country (including in Oregon) cannot be ignored in funding conversations. In the post-war era, the federal government subsidized infrastructure to spur suburban development across the country. Home loans in those new suburban neighborhoods were limited to white households due to redlining and discriminatory housing practices. This federally-subsidized suburban growth—including in Beaverton and other Washington County suburbs¹⁵—fueled racial segregation that benefited white people and hurt people of color.

Federal funding for smaller, local development projects has been challenging to come by, leaving local governments to find ways to fund infrastructure, and increasing reliance on variations of impact fees – such as SDCs – where development (growth) bears more of the cost of infrastructure. As the cost of development increases (due to multiple factors, including paying more for infrastructure), it is less likely that the market will deliver lower-cost housing options, increasing the need for subsidies or other interventions to achieve mixed income, inclusive neighborhoods.

However, reducing the infrastructure costs borne by development means either those costs must be paid by others—such as the broader population of the city or region as a whole (e.g., via city-wide taxes and fees or TDT/MSTIP)—or funding fewer projects. If the population that would absorb the costs is, on balance, less well-off than the population that will live in the new development, shifting costs to the broader population or reducing funding for projects to serve other areas would raise its own equity concerns. Thus, there are tradeoffs to consider when collecting revenues narrowly (from a specific geographic area) or widely (across a large area) and determining how much funding should come from development.

¹⁵ Federally funded, large infrastructure projects have benefited Beaverton and Washington County – one specific example is Scoggins Dam. This Bureau of Reclamation project was 85% funded by the federal government, with the balance funded by local partners, including Beaverton. Scoggins Dam creates Henry Hagg Lake, which the area uses for summer-time water supply. Beaverton residents have received the benefit of this federal project in terms of having adequate water supply in the dry summer months without having to pay the full cost of the infrastructure.



Addressing racial equity is a top priority in the Cooper Mountain Community Plan, and, therefore, the funding strategies should reflect this priority and be integrated with planning for affordable and mixed-income housing development.

Funding Timing and Phasing Considerations

The terms “funding” and “financing” are often used interchangeably but there is an important difference. The ultimate source of revenue used to pay for infrastructure costs is funding. Funding comes from households and businesses that pay taxes and fees that give governments money to build and maintain the system and to operate programs associated with the system. Funding is also derived from external sources – in the form of grants or developer contributions.

When funds are borrowed and paid back over time, then these costs have been financed. Public agencies finance costs for the same reasons that households and businesses do—to reduce the current out-of-pocket expense by spreading the payments over time (e.g., financing a housing purchase with a home mortgage; the funding to pay the mortgage over time typically comes from the homebuyer from income received each month from a job). The ultimate source of funding for financed costs is not the financing instrument itself—e.g., bonds—but rather the revenue sources accrued over time through rates, fees or taxes used to repay the borrowed funds.

Many funding tools used to pay for infrastructure to support growth in fact depend on growth to provide funding for the infrastructure. The timing of when monies become available will have implications for when the needed infrastructure can be built relative to when development occurs. This can have implications for system performance and for the ability for development to move forward at all. In the worst case, it can become a catch-22 where development cannot occur because the needed infrastructure is not in place and cannot be built by a single development, and there is not enough revenue to pay for the infrastructure until development occurs.

Financing can address some of these issues. For example, if a jurisdiction finances a project by incurring a loan or selling bonds, project costs can be paid for up front, and then different tools (e.g., system development charges, local improvement districts, etc.) may be used to repay the debt as revenues accrue over time. However, debt also has its own limitations such as debt capacity constraints, public vote requirements, and added costs (e.g., interest payments, legal fees). Different funding sources also offer more or less dependable streams of revenue with which to pay back the debt. Financing options may include general obligation (GO) bonds, revenue bonds, and local improvement districts. Financing projects over time increases the total cost due to interest and financing costs. However, an additional benefit to financing projects over time is that users are paying for the project after it is available and they can benefit from it.

For purposes of this “Funding Options” chapter, we focus on when the funds are typically paid to the City or service provider relative to the timing of development.



Existing Funding Sources

SDCs and TDT

- **Legal Considerations.** SDCs and TDT are assessed on new development. Enabling legislation provides a uniform framework that all local governments must follow to collect SDCs/TDT¹⁶. Local jurisdictions must adopt a method for calculating SDCs and Washington County adopts the method for calculating TDTs so that fees are set to reflect the growth-related share of the estimated cost of needed capital improvements that the fee will pay for.
- **Timing of Revenue Availability.** The charge is typically collected when a building permit is issued, meaning revenues must accrue over time before sufficient funding capacity is available to pay for projects.
- **Equity Impacts.** SDC/TDT rates typically vary by the type of development and may be established at lower rates than the maximum that is legally permissible to phase in increases or support equity and affordability objectives, though rates must be related to the impact a given type of user imposes on the system. In some cases, more dense housing options and/or housing that primarily serves lower-income households create less demand per housing unit on the system in question (for example, due to lower water demand from smaller units or homes with smaller yards, or lower vehicle ownership among lower-income households). The rate structure (the basis for apportioning costs) can and should account for this rather than using a flat per-unit fee in those cases. Some jurisdictions have established exemptions for income-/rent-restricted affordable housing; the City of Beaverton's legal advice is that under current SDC methodologies (which do not account for waivers), waivers are only legal when the fees are paid from another source rather than waived altogether. (THPRD is currently considering establishing waivers in their SDC methodology for affordable housing as part of the on-going update process.¹⁷)
- **Use of Funds.** SDCs/TDTs can only fund growth-related capital improvements for water supply, wastewater collection, drainage and flood control, transportation, or parks and recreation. Each infrastructure type has its own fee. For example, a transportation SDC may only fund transportation capital projects on the City's eligible project list that informed the methodology to establish rates.

Developer Contributions

- **Legal Considerations.** The amount that cities can require developers to pay for or build as a condition of development must be roughly proportional to the

¹⁶ While the TDT is referred to as a voter-approved tax, it is enabled under and subject to the same statutory requirements as SDCs.

¹⁷ Memorandum to Jeannine Rustad, Tualatin Hills Park and Recreation District, from Galardi Rothstein Group, "Preliminary Parks Level of Service and Unit Costs," June 17, 2020. Available at <http://www.thprd.org/pdfs2/document4510.pdf>.



development's impacts, and there must be a clear relationship between the impact and the improvement or contribution the City is requiring. However, development agreements for infrastructure or public amenities that are not required as a condition of development and those established as part of an annexation agreement are not subject to the same requirements for proportionality as exactions required for development.

- **Timing of Revenue Availability.** Developers pay or make improvements at the time their development triggers the need for specific projects. This could lead to the delivery of piecemeal infrastructure and collection of revenues over time.
- **Equity Impacts.** Developers pay for the infrastructure investments; however, as with SDCs, the cost is largely passed on to some combination of the initial property owner and the future users of the property, depending on market conditions. For affordable housing development, the cost of infrastructure improvements can increase the subsidy needed to develop the housing, since the revenues are limited to ensure affordability and the land costs are driven by market-rate development.
- **Use of Funds.** Targeted to specific projects / portions of projects where a given development will have a substantial impact.

MSTIP

- **Legal Considerations.** MSTIP is a funding program adopted by the Washington County Board of Commissioners.¹⁸
- **Timing of Revenue Availability.** Washington County Commissioners determine MSTIP funding amounts and project priorities on a five-year cycle.
- **Equity Impacts.** MSTIP uses property tax revenues from across the County, and revenues are targeted to major transportation improvements that broadly serve the county. Projects within Cooper Mountain would need to demonstrate broad value to county residents to be considered for this funding source, which links the funding (all county taxpayers) to the benefits of the project.
- **Use of Funds.** Eligible projects must meet certain criteria to receive funding. Generally, eligible projects should: provide geographic balance - benefit residents throughout the county, improve safety, remove bottlenecks, include major roads used by many residents, address multiple transportation demands (cars, trucks, bicycles, pedestrians, transit), and achieve high local government priorities. In general, the program should only be considered for improvements that would likely benefit travel between and beyond urban growth expansion areas.

¹⁸ Technically, the MSTIP is not a funding source, because the source of funds is property tax revenue and the MSTIP is simply a program that dedicates a portion of that revenue to funding transportation projects.



Utility Rates (Water, Sewer, and Surface Water Management)

- **Legal Considerations.** Utility rates are legal and can be enacted by ordinance or resolution.
- **Timing of Revenue Availability.** Revenues are typically received monthly. Revenues grow in proportion to population/customer growth. Revenue from future customers in a growth area will come in gradually over time as development occurs and new customers begin to use the system.
- **Equity Impacts.** Fairness from a “user pays” perspective depends on whether the fee is flat (e.g., per household and business) or based on usage. Typically, utility rates include a combination of both a fixed portion and usage portion to help strike a balance between revenues needed to maintain the system and allowing the user to control costs through variable usage. Utility fees can disproportionately affect lower-income households because they do not consider a household’s ability to pay. Utility fees with a flat rate tend to be regressive.
- **Use of Funds.** Utility fees are used by jurisdictions to pay for operations, maintenance and major repairs and upgrades of the system. Capital projects to serve new development may be supported by monthly rates through the payment of debt service if bonds had to be issued to construct improvements. Utility funds are limited to pay for the costs associated with the particular utility – water rates pay for the costs associated with providing water, sewer rates for the costs associated with providing wastewater treatment, etc.

New Sources and Financing Tools

Supplemental SDC

- **Legal Considerations.** Supplemental SDCs are subject to the same enabling legislation and legal restrictions as broad-based SDCs (described above). Fees must be calculated based on the increased demand that a new development will place on the system. (Note that these restrictions do not apply to similar area-specific fees established through development agreements at annexation.)
- **Timing of Revenue Availability.** The fee is typically collected when a building permit is issued, meaning revenues accrue over time, and there may be a time lag before sufficient funding capacity is available to pay for projects. For geographically-specific SDCs, this is particularly challenging because there are no funds from development occurring in other areas to provide revenue in early years.
- **Equity Impacts.** The equity impacts are similar to those for broad-based SDCs in terms of how costs are passed on and who is affected. However, geographically-specific SDCs target costs over a narrower base, potentially increasing the per-unit SDC relative to spreading costs across the jurisdiction, which can increase the difficulty of building affordable and low-cost housing in that area relative to other areas (assuming they are higher than or in addition to the broad-based SDC).
- **Use of Funds.** Like broad-based SDCs, supplemental SDCs must be tied to a specific project list for a given type of system (e.g., water, sewer, or transportation) for infrastructure improvements needed to support growth. For a geographically-



specific supplemental SDC, the projects must benefit development in that area, but need not necessarily be located within the area itself.

- **Potential Revenue.** While financial capacity would ultimately be contingent on the SDC rate selected and what type of infrastructure was going to be funded, a supplemental SDC for transportation is likely to be considered for the Funding Plan based on experience in other growth areas. **Based on transportation SDC rates in South Cooper Mountain, South Hillsboro, and River Terrace, residential development scenarios in Cooper Mountain alone could generate upwards of \$27.3m - \$41.6m (in 2020 dollars) for transportation using similar rates.** (Financial capacity is not inclusive of commercial development as rates are more variable or unknown.)

Local Improvement District

- **Legal Considerations.** The process to form a LID is outlined in state statute. An ordinance must be passed through a public hearing process. The assessment is determined based on the cost of the improvements being funded, the number of benefitted properties, and the apportionment method (which can vary). For residential property, the estimated assessment cannot exceed the pre-improvement value of the property based on assessor records.
- **Timing of Revenue Availability.** LIDs are often structured so that assessments are due upon project completion, but can be paid back over time, regardless of whether development has occurred on a given property. This can motivate landowners to develop their properties more quickly so they are not incurring costs before they have received any revenue from development. However, LIDs allow for the use of financing options, meaning they are typically established to repay a bond—allowing projects to be developed up front and repaid over time.
- **Equity Impacts.** This tool enables a group of property owners to share the cost of a project or public improvement that they will benefit from. The charges established by the LID should be proportional to the benefits individual property owners will enjoy. Revenues derive from a temporary assessment placed upon the property, which will impact property owners within the LID district. This cost increase could be more difficult for lower-income property owners to pay. Further, despite the financing mechanism allowing LID payments to be amortized over time, most homebuyers (and this is true for commercial property buyers as well) will use bank loans to complete their purchase, and LIDs must be paid in full before entering into a new mortgage because the LID process places a lien upon the property that has first priority, equal to property taxes, and ahead of the mortgage. Before a property changes hands, all liens must be satisfied. Thus, prospective homebuyers may (and should) factor in the cost of the LID as part of the purchase price. This could reduce the price they are willing to pay for the home, which once again is borne by the initial property owner, and has the same impacts described above for supplemental SDC's (i.e., reduced supply and changes in the types of land uses built).
- **Use of Funds.** Capital costs for specific projects.
- **Potential Revenue.** Potential revenue would be based on total project costs covered by the LID. The South Hillsboro LID noted previously is anticipated to generate roughly \$26m over about 751 net acres of development. This translates to an overall average of roughly \$35,000 per net acre; based on the anticipated development on those properties (including over 5,400 homes) this is estimated to



cost \$4,000 to \$8,000 for a single family home or \$2,000 to \$4,000 for a townhome.¹⁹ **Applying similar assessments per housing unit as those imposed in South Hillsboro to the projected development in Cooper Mountain would yield roughly \$10-20m from residential development (excluding multifamily)** if all development were included. However, in South Hillsboro this was offered in exchange for reduced supplemental transportation SDCs, so this estimate of potential revenue should not be considered fully additive with revenue potential from a supplemental SDC.

Reimbursement District

- **Legal Considerations.** Cities in Oregon can adopt a reimbursement district ordinance to provide a mechanism for developers to share project costs with those who benefit from the project. Either a developer or a service provider initially sets up the reimbursement district and pays for the improvement up front, and is paid back – reimbursed – by future developments that take benefit from the improvement. For cost sharing to occur, a reimbursement district must be formed, and benefited properties must connect to the project. These districts have a limited duration period. If benefiting properties do not connect to the project within an established period of time (10 to 30 years), then the district expires. In these instances, the initial developer or service provider who paid the upfront costs loses out on the reimbursements.
- **Timing of Revenue Availability.** Revenues from a reimbursement district would accrue over time as development occurs. Reimbursement Districts are a financing mechanism (rather than a funding tool) and are established to pay back a land developer or service provider who fronts the funds to pay for specific projects up front.
- **Equity Impacts.** Individual properties would only become subject to the reimbursement district charges (which would be proportional to the benefits they received) if they take benefit or connect to the project.
- **Use of Funds.** Capital costs for specific projects. Given the uncertainty of reimbursement and the limited time in which reimbursement can be collected, reimbursement districts are best suited to projects that benefit just a few properties, all of which are likely to develop within the reimbursement period.
- **Potential Revenue.** Potential revenue would equal the cost of the improvement, and be based on total reimbursement amounts attributable to the district. However, if the initial investment is to be made by private development (rather than public funds), this will limit the amount that can be financed in this way to what a developer can reasonably afford to pay for up front and be reimbursed for later (with some uncertainty about being fully repaid).

¹⁹ South Hillsboro Local Improvement District Frequently Asked Questions, Version 1, 1/1/2018. <https://www.hillsboro-oregon.gov/home/showdocument?id=22897>.



Appendix A. Lessons Learned

The Cooper Mountain Funding Options Assessment (FOA) included identifying lessons learned from other recent funding plans. Key takeaways are summarized in the main body of the FOA. To develop this component, ECONorthwest summarized findings from:

- **Listening Session with City of Beaverton staff.** On November 2, 2018, staff from the City of Beaverton met to discuss what went well, and what could have gone better, during South Cooper Mountain (SCM) planning and implementation. Staff shared notes from this discussion with the consultant team.
- **Listening Session with Developers.** On June 23, 2020, the project team convened a listening session with developers familiar with the Cooper Mountain area. Among other topics, developers were asked about their experiences paying for and constructing infrastructure in SCM (i.e., what worked well and what did not work well). The project team also asked developers about the tools and approaches they have used in other communities that might work well in Cooper Mountain.
- **Content Analysis of Funding Plans.** ECONorthwest reviewed five existing infrastructure funding plans of newly urbanizing areas in Washington County to understand the patterns and common elements of these products, relative to the SCM Funding Plan.

The subsections below further summarize what was heard at the two listening sessions and findings from an assessment of existing infrastructure funding plans. Note that the findings listed here primarily recount the main points raised at listening sessions—not necessarily points that have consensus among staff, developers, and the consultant team. Other than the key takeaways listed in the body of the FOA, this Appendix is not intended to validate the points raised by individuals as the listening sessions.

This Appendix categorizes lessons learned in thematic categories and then by experiences gained from the South Cooper Mountain (SCM) Funding Plan project versus other funding plan projects. The three thematic categories are:

1. Funding Plan Development Processes
2. Funding Plan Elements that Improve Outcomes
3. Delivery of Infrastructure (i.e., as it relates to funding and financing)

1. Funding Plan Development Processes

Development of any funding plan involves a multi-step process that seeks resolution of a particular problem. In this case, the Cooper Mountain Funding Plan (and the interim Funding Options Assessment), will propose strategies to pay for needed infrastructure in the Cooper Mountain study area.

A typical planning development process will include several steps, such as:

- Step 1: Identify problems and needs
- Step 2: Develop goals and objectives
- Step 3: Develop alternative strategies



- Step 4: Select strategies and document them in a detailed plan
- Step 5: Design a monitoring and evaluation plan

Following a well-founded process is essential to delivering a quality product that decision makers and others can use to achieve intended outcomes.

Experiences from South Cooper Mountain

In addition to financial analysis conducted as part of the SCM Funding Plan, the Plan relied on land use scenarios and infrastructure analysis conducted as part of the larger Cooper Mountain Community Plan project. This work helped to define “needed infrastructure” and their costs.

Then, before the Funding Plan was developed, ECONorthwest and the project team consulted with public and private partners to understand who should pay for infrastructure, through what sources, and what amounts. This consultation allowed the project team to evaluate and select the strategies described in the Plan. Components of that process to maintain or adjust include:

- **Manage Open Communication.** Staff and listening session participants shared several ideas to maintain or improve communication during the planning process. In general, communication with key parties should occur at each stage in the process. Ideas included:
 - Ongoing discussions with City Council to keep them in the loop, to understand what is non-negotiable, and to get Council support early-on. Communication methods could include one-on-one meetings and work sessions.
 - Continued messaging and communication with developers. Developers were included in the SCM planning process and helped to refine and select key strategies included in the funding plan. However, it was noted that some developers rejected strategies after being part of earlier agreements. Continued discussions with developers (before, during, and after negotiations) should be encouraged as well as ongoing messaging of value propositions.
 - Continued open communication between multiple service providers (e.g., THPRD and CWS) will promote greater buy-in and will be a critical path for funding strategy alternative decisions. To manage communication, consider memorandums of understandings or timelines for agreements.
 - To manage communication, the project team could establish point persons to reach out to key parties, schedule key meetings on the outset, and develop protocols to gather input before decisions are made.
- **Balance Perspectives.** Open communication will lend itself to the collection of multiple perspectives and varying opinions. An offshoot of open communication is the practice of balancing perspectives heard when selecting funding strategies. Including developers in the determination of funding solutions was beneficial for SCM, but some members of City staff felt the results might not have been the best outcome for implementing or paying for infrastructure.
- **Determine Intent.** The funding plan should define objectives or goals, as these factors will guide the direction toward funding solutions. Staff wanted to ensure that



all parties kept the “city’s interests in mind.” Defining those interests can enable a common language and understanding about funding elements or processes that are non-negotiable. They can also serve as criteria for monitoring and evaluating future implementation from a funding perspective.

- **Be Cognizant of Timing.** In SCM, to comply with the Transportation Planning Rule, the project team had to wait until final zoning was established before a financial plan for roads could be completed. At the outset, the project team should identify all critical paths in the development of the funding plan (and interim FOA). Then, identify the potential barriers that could block those paths.
 - Many participants commented on the timing of the overall process, however, there was disagreement about whether planning took too long or went too quickly.

Experiences from Other Communities

- **Outreach.** Most funding plans rely on one or more public/stakeholder outreach activities, which fall under the broader, project engagement strategy. These include presentation(s) to stakeholder work groups, technical advisory committees, and task forces; online forums and public meetings; and surveys and interviews with staff and stakeholders. Communities often engage development interests through these general-purpose avenues, rather than through targeted outreach to developers alone. This may be insufficient for the Cooper Mountain Funding Plan if a robust funding strategy between several developers and the public sector is desired. In the case of South Hillsboro, however, the City worked with major landowners in the area to negotiate memoranda of understandings—used to inform future legal agreements (signed prior to annexation) specifying roles and responsibilities of each party.

2. Funding Plan Elements that Improve Outcomes

This section addresses funding plan elements—the actual content, and the organization of the content—included in the plan.

Experiences from South Cooper Mountain

- **Develop Revenue Projections.** ECONorthwest’s forecast of system development charge (SDC) revenue was cited as important. Revenue projections, tied to the implementation schedule, will be an important plan element to understand the factors that may affect future revenue streams as well as the amount of money that could be available at key milestones.
- **Acknowledge Non-Capital Costs.** Ongoing operations and maintenance costs (O&M) was not a cost component considered in the SCM Funding Plan. However, a participant felt that the City should look ahead to how those will be addressed, including whether maintenance should be managed by Homeowners Associations or the City.
- **Consider a Range of Funding Tools and Programs.** The SCM funding plan relied on SDCs to fund the various infrastructure funding gaps. The appropriate funding tools



and programs will likely vary by infrastructure type. Funding tools considered in other funding plans included: utility fees, local improvement districts, reimbursement districts, general obligation bonds, and urban renewal (tax increment financing). Further, the Plan may consider implementing reimbursement districts, or other fees that allow projects to be built up front and paid back over time. Listening session participants were also interested in mechanisms that could fund joint projects between several developers and the public sector.

- **Connect the Dots.** Several participants explained that it was helpful to understand how the SCM Plan linked to other planning documents. The funding plan could provide a crosswalk to communicate which infrastructure projects are listed (or will be listed) in relevant master or facilities plans, the Capital Improvement Program (CIP), the Transportation System Plan (TSP), etc. This crosswalk could become helpful in later stages of development as land is acquired and projects are delivered.
- **Incorporate Next Steps.** Participants mentioned, that in some cases, the City planned but did not implement. The City may need strategies to ensure implementation continues, such as by establishing new programs or implementation tools. The SCM Funding Plan concluded with implications, but it may be helpful for the Cooper Mountain Funding Plan to also include recommendations for next steps or a flexible/non-binding action plan to organize workflow for the next 10 years.
- **Assign Responsibilities.** The SCM Funding plan identified general funding responsibilities. For instance, funding tables documented the amount of money likely to derive from developer contributions, SDC ratepayers, or the City via TDT and MSTIP allocated dollars. To ensure implementation of next steps is further formalized, the plan of action could identify specific parties to lead key charges. For example, who (what department) will handle public outreach if new taxes are needed that require a public vote? Who will coordinate with Metro, property owners, stakeholders, and/or service providers? Who will coordinate amongst City staff to ensure infrastructure is delivered on time, and projects are communicated consistently to external audiences?

Experiences from Other Communities

- **Include Funding Tool Evaluations.** A participant in the Cooper Mountain listening session mentioned a need for more funding tools to share costs among different parties. Another participant mentioned that system development charges cannot be solely relied on to cover infrastructure costs. Many funding plans use evaluations to weigh the tradeoffs of multiple fee and/or tax-based funding tools that could be implemented to cover infrastructure funding gaps. A funding tool evaluation could be included in the FOA to identify a larger set of tools that could cover total costs—and that spread the burden of payment around more equitably. It can also be used to explore and vet tools that appear attractive to many parties, such as the reimbursement district.

3. Delivery of Infrastructure

Here, delivery of infrastructure relates to the ability of selected funding strategies to get projects built on schedule. In this sense, and among other considerations, one must



consider the availability of funds throughout a given time period and the eligibility of revenue sources or other strategies to fund specific projects and their costs.

Experiences from South Cooper Mountain

- **Focus on Backbone Infrastructure Needed at the Front-End.** Backbone infrastructure include the core elements and connections of the infrastructure network. Listening session participants stressed the importance of making sure backbone infrastructure is accessible and delivered in the front-end. This suggests that available funds should be funneled to these projects as a first priority. For example, Cooper Mountain will need trunk lines, which are very expensive. If those projects are delivered early, they will begin generating revenue from the development that was able to move forward.
- **Time Annexations Appropriately.** The City has an opportunity to get zoning, funding tools, and developer/intergovernmental agreements in place before annexation and development occurs to ensure smooth implementation of the plan, but some funding methods might require land to be inside the city. Understanding these opportunities, constraints, and timing annexations will be important to the success of the plan's implementation.

Experiences from Other Communities

- **Explore State and Federal Transportation Funding Programs.** Transportation funding programs include Oregon's Pedestrian and Bicycle Program, Transportation Enhancements Program, Transportation Improvement Program, and Immediate Opportunity Fund as well as Federal Regional Flexible Funds Allocation (administered by Metro). In some cases, the request of these programmatic funds would require that Cooper Mountain transportation infrastructure be included in the City's TSP. Historically, however, these State programs have not been entirely fruitful for Oregon cities that are planning for greenfield, residential development. These State funding sources will not likely provide a substantial amount of funding for Cooper Mountain.
- **City-initiated Projects.** In the case of Wilsonville Frog Pond, after difficult negotiations, the City of Wilsonville agreed to build a catalyst frontage improvement and defer a park improvement until a threshold number of homes were permitted. Development is reimbursing the City of Wilsonville through a supplemental infrastructure fee (paid on a per house basis). This strategy provided greater certainty on timing of improvements.
- **Consider the tradeoffs of Districts.** Local improvement districts (LIDs) and Reimbursement Districts are common tools that cities use for infrastructure funding. Listening session participants noted that broad-based LIDs can be very complex or straightforward (depending on their structure). In the case of South Hillsboro, an LID for transportation and other infrastructure was used and applied on individual lots; developers found it complicated to work out the details and administer. (ECONorthwest has been supporting efforts to update the South Hillsboro LID assessments as zoning and land use plans shift through the course of development, highlighting one challenges with this approach.) Participants also noted that the Reimbursement District tool is not included under the current City Code.



Appendix B. Revenue Projection Details

ECONorthwest and Tiberius Solutions developed revenue projections for existing funding sources that are primarily used to pay for capital improvements needed for new development (excluding developer contributions, which are more variable). Preliminary results are documented below.

Parks and Trails Infrastructure: SDCs

The City of Beaverton collects a parks SDC on all new development in the City on behalf of THPRD.²⁰ Fee rates (effective 7/1/19) vary by area, as outlined below.²¹ An estimate of revenue from development in Cooper Mountain for parks SDCs is presented in Exhibit 4.

- **In all park district areas, except the South Cooper Mountain area,** the rate is \$11,895 per new one- and two-family dwellings and \$9,595 per new multifamily dwelling, and \$397 per employee for new commercial development.
- **In the South Cooper Mountain area,** the rate is \$13,905 per one- and two-family dwellings, \$11,097 per multifamily dwelling, \$8,193 per new unit in a senior housing development, and \$397 per employee in a new commercial development.²²

²⁰ THPRD allows applicants to apply for SDC credits for qualified public improvements, donation or contribution of land or construction of park or recreation facilities on the district's SDC-CIP list. For more information: <http://cdn1.thprd.org/pdfs2/document17.pdf>

²¹ THPRD is in the process of updating SDC rates. This section will be updated when the new rates are released.

²² THPRD is considering discontinuing the SDC overlay for South Cooper Mountain, per a technical memorandum from Galardi Rothstein Group dated June 17, 2020 (available at <http://www.thprd.org/pdfs2/document4510.pdf>).

**Exhibit 4. THPRD Parks SDC Revenue Potential (2020 dollars), Cooper Mountain, 2021-2041**

Source: ECONorthwest.

Note: values are presented in constant 2020 dollars and rounded to the thousand.

	Citywide Rates		SCM Rates	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Residential Development				
Single-family detached units	\$22,363,000	\$31,308,000	\$26,141,000	\$36,598,000
Attached Units	\$13,418,000	\$6,709,000	\$15,685,000	\$7,842,000
Multifamily	\$7,215,000	\$5,412,000	\$8,345,000	\$6,259,000
Commercial Development²³				
Low EMP Density	\$9,000	\$17,000	\$9,000	\$17,000
High EMP Density	\$20,000	\$40,000	\$20,000	\$40,000
Total (with low EMP density)	\$43,005,000	\$43,446,000	\$50,180,000	\$50,716,000
Total (with high EMP density)	\$43,016,000	\$43,469,000	\$50,191,000	\$50,739,000

²³ Low and high employment (EMP) density assumptions are: 21 and 50 employees in Scenario 1 and 43 and 100 employees in Scenario 2 (based on THPRD Parks SDC Worksheet, square foot per employee range of 700 and 300 square feet per employee).



Water Infrastructure: SDCs

The City of Beaverton will be responsible for providing water service to the Cooper Mountain planning area. The City of Beaverton currently collects a water SDC in their service area. Rates (effective 7/1/19) vary by meter size:

- Meter size of 5/8-inch: \$6,255 per new residential dwelling unit and commercial connection (plus \$124 per meter).
- Meter size of 3/4-inch: \$9,007 per new residential dwelling unit and commercial connection (plus \$140 per meter).
- Meter size of 1 inch: \$16,013 per new multifamily dwelling unit and commercial connection (plus \$186 per meter).
- Meter size of 2 inches or larger: SDC rate is variable on all new development (plus \$365 per 1.5-inch meter, \$476 per 2-inch meter, and variable for meters that are 3-inches or larger).

However, on July 14, 2020 the City adopted a new citywide SDC methodology for its water system.²⁴ On August 4, 2020, Beaverton's City Council adopted a resolution establishing the new Water SDC rates. The new Water SDC rates (effective February 1, 2021), will vary by meter size, and are:²⁵

- Meter size of 5/8-inch: \$8,774
- Meter size of 3/4-inch: \$13,161
- Meter size of 1-inch: \$21,935
- Meter size of 1.5-inch: \$43,870
- Meter size of 2-inches or larger: Variable; determined based on the number of Equivalent Dwelling Units (EDUs) estimated based on projected water demand.

An estimate of revenue from development in Cooper Mountain for water SDCs is presented in Exhibit 5.²⁶

²⁴ Beaverton City Council may grant credits against the water improvement SDC (imposed by the resolution adopting the revised SDCs (August 4, 2020)), for qualified public improvements as defined in ORS 223.304 on certification by the City Engineer that the improvement(s) qualify for that credit.

²⁵ Rates provided by the City of Beaverton.

²⁶ Financial capacity for single-family detached and attached units assumes a 5/8-inch meter per unit. Financial capacity for multifamily units is based on an assumed average SDC rate per unit of \$2,476. The rate is informed by previous water SDC payments on multifamily development comparables (provided by the City of Beaverton). Financial capacity for commercial development is based on a scenario in which the retail center comprises one 1-inch meter (Scenario 1) and a scenario in which the retail center comprises one 1.5-inch meter (Scenario 2).

**Exhibit 5. Water SDC Revenue Potential (2020 dollars), Cooper Mountain, 2021-2041**

Source: ECONorthwest.

Note: values are presented in constant 2020 dollars and rounded to the thousand.

	Scenario 1	Scenario 2
Residential Development		
Single-family detached units	\$16,495,000	\$23,093,000
Attached units	\$9,897,000	\$4,949,000
Multifamily units	\$1,862,000	\$1,397,000
Commercial Development		
Retail Center	\$22,000	\$44,000
Total	\$28,254,000	\$29,439,000



Sanitary Sewer Infrastructure: SDCs

The City of Beaverton collects a sanitary sewer SDC on behalf of CWS. The City retains four percent of SDC revenues from this source, the remaining 96 percent is remitted back to CWS. The connection rate (effective 7/1/19) is \$5,800 per new dwelling unit and per equivalent dwelling unit for new commercial development.

An estimate of financial capacity for sanitary sewer SDCs is presented in Exhibit 7.

Exhibit 6. Sewer SDC Revenue Potential (2020 dollars), Cooper Mountain, 2021-2041

Source: ECONorthwest.

Note: values are presented in constant 2020 dollars and rounded to the thousand.

	Scenario 1	Scenario 2
Residential Development		
Single-family detached units	\$10,904,000	\$15,266,000
Attached units	\$6,542,000	\$3,271,000
Multifamily units	\$4,362,000	\$3,271,000
Commercial Development		
Retail Center	TBD	TBD
Total	\$21,808,000	\$21,808,000



Stormwater Infrastructure: SDCs

The City of Beaverton collects and retains the Stormwater SDC imposed by CWS. Rates (effective 7/1/19) vary by development type, as outlined below. An estimate of financial capacity for stormwater SDCS is presented in Exhibit 9.

- **New residential development:** \$1,252 per Equivalent Service Unit (ESU) of created impervious area on non-right-way property.
- **New commercial development:** \$1,252 for each 2,640 square feet of newly created impervious surface.

In addition to the \$1,252 per ESU fee, stated above, the City of Beaverton imposes a \$238 Storm Water Quality Fee and a \$291 Storm Water Quantity Fee. These two fees are waived if onsite detention and water quality infrastructure is constructed. The \$1,252 SDC fee is never waived.

Exhibit 7. Stormwater SDC Revenue Potential (2020 dollars), Cooper Mountain, 2021-2041

Source: ECONorthwest.

Note: values are presented in constant 2020 dollars and rounded to the thousand.

	Scenario 1	Scenario 2
Residential Development		
Single-family detached units	\$2,354,000	\$3,295,000
Attached units	\$1,412,000	\$706,000
Multifamily units ²⁷	\$285,000	\$214,000
Commercial Development		
Retail Center ²⁸	\$5,000	\$10,000
Total	\$4,056,000	\$4,225,000

²⁷ Estimate is based on sq. ft. of impervious surface. The estimate relies on assumptions from the South Cooper Mountain Funding Plan: 43.56 multifamily units per acre and an assumed 80 percent impervious sq. ft. per acre factor.

²⁸ Estimate is based on sq. ft. of impervious surface. Per the Cooper Mountain Market Study, the estimate relies on an assumed Retail Center area of 1-acre for Scenario 1 and 2-acres for Scenario 2. The estimate relies on an assumption from the South Cooper Mountain Funding Plan: an assumed 70 percent impervious sq. ft. per acre factor.



Traffic Development Tax (TDT)

The TDT tax rate (effective 7/1/19) is \$8,968 per new one-family dwelling unit, \$5,364 per new two-family dwelling unit, \$6,064 for new multifamily dwellings, and variable for commercial development (e.g., see Exhibit 11). The City keeps TDT revenues collected within city limits; revenues must be spent on projects identified on the TDT-eligible project list.

Exhibit 8. Washington County TDT Land Use Categories and Rates

Source: Washington County.

Land Use Categories	ITE Code	Unit	Rate
Health/Fitness Club	492	per TSGFA	\$9,128
Recreation/Community Center	495	per TSGFA	\$10,765
Specialty Retail	814	per TSGLA	\$12,300
Pharmacy/Drugstore w/out Drive-Thru	880	per TSGFA	\$13,805
Quality Restaurant (not a chain)	931	per TSGFA	\$27,443
Bank/Savings: Walk-in	911	per TSGFA	\$28,581
High Turnover, Sit-Down Restaurant (chain or stand-alone)	932	per TSGFA	\$23,021
Medical-Dental Office Building	720	per TSGFA	\$32,960

An estimate of financial capacity for TDT is presented in Exhibit 12.

Commercial development rates (secondary development assumptions) are based on the minimum (low), average (medium), and maximum (high) rates outlined in Exhibit 11. These rates were selected based on an assumed tenant mixture identified in the Cooper Mountain Market Study.



Exhibit 9. Transportation Development Tax Revenue Potential (2020 dollars), Cooper Mountain, 2021-2041

Source: ECONorthwest.

Note: values are presented in constant 2020 dollars and rounded to the thousand.

	Scenario 1	Scenario 2
Residential Development		
Single-family detached units	\$17,426,000	\$24,396,000
Attached units	\$6,254,000	\$3,127,000
Multifamily units	\$4,560,000	\$3,420,000
Commercial Development		
Retail Center	<i>(Secondary development assumptions below)</i>	
Assumed rate: Low	\$137,000	\$274,000
Assumed rate: Medium	\$296,000	\$593,000
Assumed rate: High	\$494,000	\$989,000
Other Development		
Parks	TBD	TBD
School Facilities	TBD	TBD
Total, with		
Low Commercial	\$28,377,000	\$31,217,000
Medium Commercial	\$28,536,000	\$31,536,000
High Commercial	\$28,734,000	\$31,932,000



MSTIP

MSTIP is a discretionary allocation of general fund / property tax revenue by Washington County that varies from year to year. There is no guarantee that any property tax revenue derived from development in Cooper Mountain will be spent on projects in Cooper Mountain. There is no way to accurately predict at this stage whether and how much MSTIP funding might be available for transportation projects in Cooper Mountain, but it will be based on the projects themselves, not revenues derived from development. However, to provide a point of reference in discussions with the County about allocating future revenue to projects in Cooper Mountain, the calculations below estimate how much new development in Cooper Mountain may contribute to available MSTIP funds. The MSTIP estimates below reflect 25% of the additional property tax revenue to Washington County over 20 years from new development in Cooper Mountain (based on past funding allocations), assuming a linear phase-in of residential development over that period and commercial development in roughly year 15. An estimate of potential new revenue from Cooper Mountain available for the MSTIP program is presented in Exhibit 13. Revenue projection details for Scenario 1 and 2 are presented in Exhibit 14.

Exhibit 10. MSTIP New Revenue Potential Summary (2020 dollars), Cooper Mountain, 2021-2041

Source: ECONorthwest.

Note: values are presented in constant 2020 dollars, based on cumulative revenue over time, and rounded to the thousand.²⁹

	Scenario 1	Scenario 2
Residential Development		
Single-family detached and attached units	\$4,367,000	\$4,640,000
Multifamily units	\$343,000	\$257,000
Commercial Development		
Retail Center	\$8,000	\$16,000
Total	\$4,718,000	\$4,913,000

²⁹ The estimate is based on assumptions for total assessed value, assuming a linear development trajectory, Washington County's 2019-20 Change Property Ratios, a County millage rate of \$2.248 per \$1000 of assessed value based on 2020-2021 tax rates, and a 25% share of annual property tax revenues being allocated to the MSTIP program based on past trends.



Exhibit 11. MSTIP Revenue Potential, Scenario 1 and 2 Details, (2020 dollars), Cooper Mountain, at Buildout and 2021-2041

Source: ECONorthwest.

	Units at Buildout	Est. Real Market Value per Unit or SF	Total Real Market Value at Buildout	CPR	Assessed Value at Buildout	Property Tax Revenue to Wash. Co., Annual at Buildout	Estimated MSTIP Share	MSTIP Allocation, Annual at Buildout	MSTIP Allocation, 20-year total
Scenario 1									
Residential Development									
SFD/SFA Units	3,008	\$400,000	\$1,203,200,000	0.623	\$749,593,600	\$1,685,386	25%	\$415,940	\$4,367,000
Multifamily	752	\$220,000	\$165,440,000	0.356	\$58,896,640	\$132,423	25%	\$32,681	\$343,000
Commercial Development									
Retail center	15,000	\$250	\$3,750,000	0.639	\$2,396,250	\$5,388	25%	\$1,330	\$8,000
Total			\$1,372,390,000		\$810,886,490	\$1,823,197		\$449,951	\$4,718,000
Scenario 2									
Residential Development									
SFD/SFA Units	3,196	\$400,000	\$1,278,400,000	0.623	\$796,443,200	\$1,790,723	25%	\$441,936	\$4,640,000
Multifamily	564	\$220,000	\$124,080,000	0.356	\$44,172,480	\$99,317	25%	\$24,511	\$257,000
Commercial Development									
Retail center	30,000	\$250	\$7,500,000	0.639	\$4,792,500	\$10,775	25%	\$2,659	\$16,000
Total			\$1,409,980,000		\$845,408,180	\$1,900,816		\$469,106	\$4,913,000



Appendix C. Broader List of Infrastructure Funding Tools

This appendix presents a range of sources that other jurisdictions have used to pay for infrastructure.

Based on discussions from the City of Beaverton and previous listening sessions, the Funding Options Assessment (FOA) evaluated a short-list of most promising new funding tools. That evaluation is presented in the main body of the FOA.

The broader list of possible tools is outlined below (in Exhibit 16), which does not include the short-listed options. It excludes grant-based sources as these are outside local control and are difficult to predict. Exhibit 16 also includes a qualitative assessment of financial capacity (\$-\$\$\$).

Exhibit 12. Infrastructure Funding Tools

Source: ECONorthwest.

Funding Tool	Description	Potential Financial Capacity
Fuel (or gas) tax	<p>This is a tax on the sale of gasoline and other fuels, typically levied as a fixed dollar amount per gallon. Under ORS 319.950, a local gasoline tax may be levied by a city, county, or other local government after a public vote. Revenues from a gas/fuel tax funds can be used for transportation construction, repair, maintenance, preservation, bike/pedestrian improvements, and sidewalks.</p> <p>At present, this tool is not short-listed. If the City did impose a citywide fuel tax, it should fund a wider range of citywide transportation priorities, given the requirement for a public vote. Paying for transportation infrastructure to serve new development is a tough sell when existing residents are the ones voting. In addition, while the cost of gas is currently lower than it has been in the past, adding to the cost of gas has traditionally frustrated the public, making this a relatively controversial tax to levy. At best, the fuel tax might be an appropriate way to fund one or two major projects in Cooper Mountain, if implemented as part of an overall transportation funding package citywide, e.g. following a TSP update.</p>	<p>\$\$\$</p> <p>A citywide fuel tax has the potential to generate substantial revenue; however, financial capacity would be contingent on the voter approved rate.</p>



Funding Tool	Description	Potential Financial Capacity
<p>General Fund allocation</p>	<p>The general fund is technically not a funding tool, but an account that all local governments have, where a variety of unrestricted revenue sources are collected (e.g., property taxes, business license fees, franchise fees, etc.). General funds tend to be dedicated to carry out the ordinary operations of cities, but these funds may be used for capital expenses as well.</p> <p>At present, this option is not short-listed. Local jurisdictions rely heavily on general fund revenues to fund all types of critical services, such as police and fire. Most jurisdictions have insufficient general fund revenues to fund these core services at their desired levels. Diverting these revenues to the project list in Cooper Mountain may not be politically feasible. However, this option could be worth exploring in the context of advancing equity goals (e.g. to pay SDCs, TDTs, or required infrastructure improvements for affordable housing developments in Cooper Mountain), rather than to pay for infrastructure improvements more broadly. However, it is important to note that trade-offs to services would be carefully considered by Beaverton City Council.</p>	<p>\$ - \$\$\$</p> <p>Financial capacity is contingent on fiscal policy direction. An allocation to infrastructure in Cooper Mountain would require equivalent cuts to other programs.</p>
<p>Local option levy (property tax)</p>	<p>Local option levies are temporary property tax increases, approved by voters. Local option levies cannot exceed five years if used to fund operations/maintenance and 10 years if used to pay for capital projects. However, the levy can be reviewed and extended, if the public continues to vote in favor of the levies.</p> <p>At present, this tool is not short-listed. It is subject to a public vote, implying this tool could be reconsidered if the public believes its use in Cooper Mountain is a fair use of funds for projects with a citywide benefit. Similarly to the fuel tax, this option could be reconsidered to fund one or two major projects in Cooper Mountain, if implemented as part of an overall transportation funding package citywide, e.g. following a TSP update.</p>	<p>\$\$\$</p> <p>Although voter-approved local option levies (whether for operations/maintenance or for capital projects) are the first to be impacted by compression³⁰, a local option levy has the potential to generate substantial revenues.</p>

³⁰ Because of the complexities of Oregon’s property taxation system, in some situations, adding new taxes does not always reliably result in net new revenue for local government operations. This occurs because of compression, or a mandatory reduction of property tax revenues to comply with state law when certain thresholds are exceeded.



Funding Tool	Description	Potential Financial Capacity
<p>Parking fee</p>	<p>Parking revenues can be raised from both operations (e.g., parking meters or publicly owned parking lots) and fines. There are no legal restrictions on what parking revenues can be used for.</p> <p>This tool is excluded from further analysis as revenues would be insufficient to contribute meaningfully to infrastructure costs in Cooper Mountain. Cooper Mountain is a greenfield area and there is nowhere in the surrounding area where people have to pay for parking (except maybe for reserved or covered parking in apartment complexes which does not generate public revenue). Residential permit parking also has no precedent in the surrounding areas and would make the area less desirable than the other neighborhoods nearby.</p>	<p>\$</p> <p>It is not feasible to impose parking rates to a high enough level to make a meaningful contribution. Parking fees work in high-demand downtown commercial areas.</p>
<p>Sales tax</p>	<p>A tax on retail sales, typically added to the price at the point of sale. Oregon does not currently have a sales tax, though nothing precludes cities from adding one of their own. Is possible for a city to adopt a tax on specific items, such as the sale of motor vehicles, rental cars, bicycles, prepared food and non-alcoholic beverages, etc.</p> <p>This tool is excluded from further analysis for political reasons; numerous sales tax proposals have been defeated at the polls by wide margins. In addition, sales tax is generally considered regressive because low-income people pay a higher percentage of their income than high-income people.</p>	<p>\$\$-\$\$\$</p> <p>While sales taxes are traditionally unpopular in Oregon, they have the potential for generating substantial revenues. Revenue capacity would, however, be more limited, if the sales tax is applied to a specific subset of goods.</p>
<p>Service or special district</p>	<p>Area residents vote to establish a district which levies a property tax to provide specific public improvements within the boundaries of a city or drainage district. All revenues derived from levying a higher property tax rate is limited to the properties within the district boundary. Revenues cannot be transferred or loaned for other purposes.</p> <p>This tool is excluded from further analysis as it would be inefficient to create a new taxing authority with its own administration, and existing districts, including CWS and THPRD, are anticipated to provide service in this area. This tool was implemented for roads in North Bethany, which is an unincorporated area, but it has generated little revenue for projects.</p>	<p>\$\$</p> <p>Financial capacity is contingent on the property tax rate selected). Capacity is limited to the properties within the district boundary.</p>



Funding Tool	Description	Potential Financial Capacity
<p>Tolls</p>	<p>Tolling is allowed on Oregon roads to fund transportation projects.</p> <p>This tool is excluded from further analysis as the roads in and around Cooper Mountain are unlikely to be good candidates for tolling or to receive public support for this option. In addition, the administrative burden and implementation costs would outweigh the benefits.</p>	<p>\$</p> <p>High revenue yields are produced in high-speed limited access corridors, service in high-demand corridors, and bypass facilities to avoid congested areas.</p>
<p>Transient lodging tax</p>	<p>The City of Beaverton imposes a four percent city-wide lodging tax. The City uses revenue to promote tourism in connection with the Patricia Reser Center for the Arts. However, 30% of revenue generated from this source may be flexibly used to pay for costs that are not tourism related. Tax rates vary by jurisdiction, and the City could consider a higher tax rate.</p> <p>This tool is excluded from further analysis as there is not a direct connection between the amount of transient lodging tax someone pays, and the benefits they receive from certain types of infrastructure. This option could be reconsidered to pay for public art, outstanding trails, or pocket parks with views – things that might appeal to tourists visiting the Cooper Mountain Nature Park and draw people to the area.</p>	<p>\$-\$\$</p> <p>The City of Beaverton imposes a four percent lodging tax, which generated about \$1.2 million in 2018.</p> <p>An additional increase in the tax rate could increase, and even double, this source's financial capacity. However, the hospitality industry is suffering, so increasing the tax rate would not be advisable in the near-term.</p>
<p>Transportation Utility Fee</p>	<p>A transportation utility fee (TUF) is a charge assessed to all businesses and households in a jurisdiction or area. In Oregon, cities can enact a TUF by ordinance. The fee may be flat or based on trip generation and the rate may vary by development type. The fee may be paid by households, businesses, and/or commercial property owners within the area in which the fee is imposed.</p> <p>The fee is typically collected monthly, but it could be collected seasonally or annually, etc. Revenues received from the TUF are flexible – they could be used for construction, repair, maintenance, preservation, operations, and administration of the transportation system.</p> <p>At present, this option is not short-listed but may be revisited depending on the magnitude of the transportation funding gap.</p>	<p>\$-\$\$\$</p> <p>Financial capacity is contingent on the fee rate selected and the geographic range in which the fee applies.</p>



Exhibit 13. Infrastructure Financing Tools

Source: ECONorthwest.

Financing Tool	Description
General obligation bond	General obligation (GO) bonds are a voter-approved, temporary increase in property tax rates. Proceeds from GO bonds can only be used for capital projects. State law allows local governments to issue general obligation debt for infrastructure improvements. GO bond levies typically last for 20 to 30 years for and must be approved by a public vote.
Revenue bond	Following a 60-day noticing procedure, a City can issue revenues bonds via a resolution, unless the public petitions (with sufficient, valid signatures) to refer the bond to a public vote. An expected source of revenue for bond repayment must be identified.



Appendix D: Transportation Project and Cost Estimates

The project team has determined preliminary cost estimates for transportation projects in and adjacent to Cooper Mountain. Costs estimates are identified in 2020 dollars, using a mid-point cost estimate, in Exhibit 18. More work remains to determine which projects need to be funded to enable development of Cooper Mountain. Some of the off-site projects may be removed from this list for the final funding plan, and additional projects may be identified through subsequent analysis.

Exhibit 14. Summarized Transportation Costs Estimates (2020 dollars), Cooper Mountain

Source: DKS Associates

Project ID	Project Name	Project Type	Within Cooper Mountain	TDT Project	Jurisdiction	Project Summary	Total Estimated Cost - Mid (2020)*
1	Extend 185th Avenue from Gassner Road to Kemmer Road as a 3-lane County arterial.	Roadway - arterial	No	No	Washington County	New Street Extension	\$6,625,863
3	Realign the curve along Grabhorn Road near Stone Creek Drive, as a 3-lane County arterial.	Roadway - arterial	Yes	No	Washington County	New Street Extension	\$5,262,730
4	Realign the curve along Grabhorn Road north of Tile Flat Road, as a 3-lane County arterial.	Roadway - arterial	Yes	No	Washington County	New Street Extension	\$3,370,448
5	Realign Grabhorn Road east to provide a through connection with Tile Flat Road, as a 3-lane County arterial.	Roadway - arterial	Yes	No	Washington County	New Street Extension	\$5,418,023



Project ID	Project Name	Project Type	Within Cooper Mountain	TDT Project	Jurisdiction	Project Summary	Total Estimated Cost - Mid (2020)*
8a	Create a new north-to-south 2-lane City collector street between Grabhorn Road and the UGB, just south of the Alvord Lane Extension	Roadway - collector	Yes	No	Beaverton	New Street Extension	\$10,887,811
9	Improve the Rigert Road/170th Avenue intersection.	Intersection	No	No	Washington County	Intersection Improvement	\$2,300,647
11	Improve the Scholls Ferry Road/ Horizon-Teal Boulevard intersection.	Intersection	No	No	Washington County	Intersection Improvement	\$575,162
13b	Improve Grabhorn Road from the UGB, north of the new east-to-west Collector Street, to the UGB, near Stone Creek Drive, as a 3-lane County arterial.	Roadway - arterial	Yes	No	Washington County	Improve to 3 lanes	\$4,796,849
13c	Improve Grabhorn Road from the UGB, near Stone Creek Drive, to Gassner Road, as a 3-lane County arterial.	Roadway - arterial	No	Yes - 1091	Washington County	Improve to 3 lanes	\$4,986,652
14b	Improve 175th Avenue from the UGB, north of Alvord Lane, to Kemmer Road as a 3-lane County arterial.	Roadway - arterial	Yes	No	Washington County	Improve to 3 lanes	\$4,532,274
15	Improve Kemmer Road from 175th Avenue to the 185th Avenue extension as a 3-lane County arterial.	Roadway - arterial	Yes	No	Washington County	Improve to 3 lanes	\$2,979,338



Project ID	Project Name	Project Type	Within Cooper Mountain	TDT Project	Jurisdiction	Project Summary	Total Estimated Cost - Mid (2020)*
16	Improve Gassner Road from Grabhorn Road to the 185th Avenue extension as a 2-lane County collector.	Roadway - collector	No	No	Washington County	Improve to 2 lanes	\$2,847,051
17b	Construct a community shared-use path (South Cooper Loop Trail) along the east side of Grabhorn Road and Tile Flat Road, between the UGB and the west side of the Cooper Mountain Nature Park.	Shared-use path	Yes	No		Shared-use path	\$1,455,159
19b	Construct a community shared-use path (South Cooper Loop Trail) along the west side of 175th Avenue, between the UGB and Weir Road.	Shared-use path	Yes	No		Shared-use path	\$1,512,675
22	Install crosswalk and pedestrian activated flasher on 175th Avenue at Weir Road.	Street Crossing	Yes	No	Washington County	Street Crossing	\$92,026
Road Corridor 1, Segment A	Create a new 2-lane neighborhood route south of Road Corridor 3 (parking on both sides)	Roadway - neighborhood route	Yes	No		New Street Extension	\$3,117,377
Road Corridor 1, Segment B	Create a new 2-lane City collector street between Road Corridor 3 and north side of the ravine	Roadway - collector	Yes	No		New Street Extension	\$4,474,758



Project ID	Project Name	Project Type	Within Cooper Mountain	TDT Project	Jurisdiction	Project Summary	Total Estimated Cost - Mid (2020)*
Road Corridor 1, Segment C	Create a new 3-lane City collector street between the north side of the ravine and Kemmer Road	Roadway - collector	Yes	No		New Street Extension	\$10,237,879
Road Corridor 2	Create a new 2-lane City neighborhood route from Road Corridor 3 to Weird Road (no parking due to topography)	Roadway - neighborhood route	Yes	No		New Street Extension	\$6,545,340
Road Corridor 3, Segment A	Create a new 2-lane City neighborhood route south of High Hill Lane (no parking due to topography)	Roadway - neighborhood route	Yes	No		New Street Extension	\$3,008,096
Road Corridor 3, Segment B	Create a new 2-lane neighborhood route between SW 175th Avenue and High Hill Lane (parking on both sides)	Roadway - neighborhood route	Yes	No		New Street Extension	\$4,681,816
Road Corridor 3, Segment C	Create a new 3-lane City collector street between SW 175th Avenue and Road Corridor 1	Roadway - collector	Yes	No		New Street Extension	\$7,707,167
Road Corridor 3, Segment D	Create a new 3-lane City collector street between Road Corridor 1 and Road Corridor 4	Roadway - collector	Yes	No		New Street Extension	\$8,903,504



Project ID	Project Name	Project Type	Within Cooper Mountain	TDT Project	Jurisdiction	Project Summary	Total Estimated Cost - Mid (2020)*
Road Corridor 4	Create a new 3-lane City collector street east of Grabhorn Road	Roadway - collector	Yes	No		New Street Extension	\$10,876,308