

DATE: March 5, 2014

ECO Project #: 21286

TO: South Cooper Mountain Project Management Team

FROM: Nick Popenuk

SUBJECT: SOUTH COOPER MOUNTAIN: EARLY FUNDING ANALYSIS (TASK V.4.3)

This memorandum summarizes the key findings of preliminary analysis on how infrastructure in the South Cooper Mountain area could be funded. This analysis is driven, in part, by Metro Title 11 Functional Plan requirements that state “Comprehensive plan provisions for the area shall include... provision for the financing of local and state public facilities and services.” In addition to meeting these regulatory requirements, the analysis is intended to serve a practical purpose. The early funding analysis is intended to inform selection of the final preferred land use and transportation scenarios, and to increase developer and property owner confidence in the process by addressing financing and implementation strategies early on.

This memorandum is organized in three main sections:

- **Methods** describes the steps that were taken to conduct the early funding analysis.
- **Infrastructure funding analysis** identifies the key conclusions of the analysis, organized by type of infrastructure.
- **Implications and next steps** summarizes the important implications of the analysis, and describes the next steps to refine this analysis and produce a final South Cooper Mountain Infrastructure Finance Plan.

Methods

This early funding analysis was conducted through a collaborative process, involving the consultant team, City staff, representatives of local and regional governments and service providers responsible for building and maintaining infrastructure in the South Cooper Mountain area, and private property owners and developers.

The process was both technical (identifying what infrastructure improvements are needed and how much they would cost), and political (discussing who should pay and how much).

Although this was an iterative process, the methods generally followed the following steps:

- **Land use scenarios.** Multiple scenarios were developed to show what potential development in South Cooper Mountain might look like, including what types of development would occur where at what densities.
- **Infrastructure analysis.** The land use scenarios were evaluated to determine all the infrastructure that would be necessary to accommodate the projected new development. This resulted in a list of specific infrastructure projects with cost estimates for each project.

- **Basic revenue estimates.** For “basic” sources of revenue (i.e., fundamental revenue sources assumed to be available for South Cooper Mountain infrastructure, like Systems Development Charges (SDCs), and Transportation Development Tax (TDT)) we estimated the amount of revenue that would be generated at full build-out of the land use scenarios.
- **Consultation with public and private partners.** A series of interviews were conducted with private developers and public infrastructure providers to understand their perspectives on who should pay for infrastructure, through what sources, and what amounts. Additionally, a Finance Task Force was convened to bring these various public and private parties together to discuss these issues.
- **Preliminary funding plan and determination of gap.** The end result of this process was a preliminary funding plan that shows the total project cost and projected allocation of basic funding sources for each type of infrastructure. In situations where basic funding sources are projected to be insufficient to cover the total project costs, funding gaps that are identified will need to be solved, either through reduction in project costs, or through identification of additional revenue sources.

Note that although numerous land use scenarios were tested during this process, they have gone through an evaluation process that has resulted in two working scenarios under consideration at this time. Both of these scenarios are similar enough, in terms of their land use pattern and infrastructure needs, that only one set of infrastructure cost estimates is used for this analysis.¹ Additionally, although the revenue estimates are marginally different for the two scenarios under consideration, these estimates are generally within 3% of each other, and for the ease of understanding, this memorandum only discusses revenue estimates from one scenario.²

Also note that this early funding analysis was conducted for the total South Cooper Mountain area, as well as its three constituent subareas: the South Cooper Mountain Annexation Area (SCMAA), North Cooper Mountain (NCM), and the Urban Reserve Area (URA). To simplify these results, this memorandum only reports information on two geographies: the total South Cooper Mountain area and the SCMAA (which is anticipated to be the first subarea to experience significant new development in the relative near-term).

One last important caveat when reading this report: all dollar amounts stated in this report are in constant 2014 dollars, and have not been adjusted for inflation.

¹ Infrastructure cost estimates (except for Transportation) are based on Scenario 2 as described in Angelo Planning Group memorandum on “South Cooper Mountain Scenario Evaluation: Land Use and Energy,” dated December 19, 2013. Transportation cost estimates are based on the DKS memorandum on Transportation Findings, dated February 10, 2014.

² Revenue estimates based on Scenario A.

Infrastructure funding capacity

Overview

Exhibit 1 provides an overview of anticipated infrastructure costs for South Cooper Mountain, including total costs and the “local share” (i.e., the portion of the costs attributed to increased demand from South Cooper Mountain development). Note that for all types of infrastructure other than transportation the total costs and local share are identical. For transportation, the local share is a fraction of the total cost, recognizing that much of the traffic forecast on these transportation improvements would stem from demand elsewhere in the City and region passing through the South Cooper Mountain area. Total project costs are estimated to be \$322.1 million, with the local share of costs estimated to be \$223.3 million.

Exhibit 1. South Cooper Mountain, infrastructure cost estimates

Infrastructure Type	Estimated Cost	
	Total	Local Share
Parks	\$ 34,462,500	\$ 34,462,500
Water	\$ 20,114,711	\$ 20,114,711
Sanitary Sewer	\$ 38,472,238	\$ 38,472,238
Stormwater, pipe	\$ 16,960,200	\$ 16,960,200
Stormwater, ponds	\$ 19,021,800	\$ 19,021,800
Transportation	\$ 193,072,000	\$ 94,249,000
Total	\$ 322,103,449	\$ 223,280,449

Calculated by ECONorthwest based on various infrastructure cost estimates:

Angelo Planning Group. Park Acreages and Costs – updated 120913.xlsx. From Becky Hewitt. December 9, 2013.

David Evans and Associates, Inc. memorandum on “Water System Scenario Evaluation – Summary Findings and Planning Level Cost Estimates.” From Steven Harrison. To South Cooper Mountain Technical Advisory Committee. December 19, 2013.

David Evans and Associates, Inc. memorandum on “Sanitary Sewer Scenario Evaluation – Summary Findings and Planning Level Cost Estimates.” From Steven Harrison. To South Cooper Mountain Technical Advisory Committee. December 19, 2013.

David Evans and Associates, Inc. memorandum on “Stormwater and Water Quality Scenario Summary.” From Claudia Sterling. To South Cooper Mountain Beaverton Core Project Team. November 5, 2013 (draft).

DKS memorandum on “Transportation Findings.” From Carl Springer, Kevin Chewuk. To South Cooper Mountain Technical Advisory Committee. February 10, 2014.

Exhibit 2 provides an overview of the infrastructure funding capacity for all types of infrastructure in the total South Cooper Mountain area. Costs for parks, water, and sanitary sewer are anticipated to be funded entirely by Systems Development Charges (SDCs), and have no funding gap. Costs for stormwater (pipes and ponds) are anticipated to be covered entirely by a Regional Facility Fee (RFF), and therefore have no funding gap. Costs for transportation are anticipated to be funded by a combination of Transportation Development Tax (TDT) and Major Streets Transportation Improvement Program (MSTIP) funds. Assuming that South Cooper Mountain only receives a portion of the TDT and MSTIP generated by new development in the area to cover the local share of transportation infrastructure costs, there is a sizable funding gap for transportation infrastructure.

Exhibit 2. South Cooper Mountain infrastructure costs and estimated funding sources

Infrastructure Type	Estimated Cost	Funding Source					Total	Funding Gap
		SDC	RFF	TDT	MSTIP			
Parks	\$ 34,462,500	\$ 34,462,500	\$ -	\$ -	\$ -	\$ -	\$ 34,462,500	\$ -
Water	\$ 20,114,711	\$ 20,114,711	\$ -	\$ -	\$ -	\$ -	\$ 20,114,711	\$ -
Sanitary Sewer	\$ 38,472,238	\$ 38,472,238	\$ -	\$ -	\$ -	\$ -	\$ 38,472,238	\$ -
Stormwater, pipe	\$ 16,960,200	\$ -	\$ 16,960,200	\$ -	\$ -	\$ -	\$ 16,960,200	\$ -
Stormwater, ponds	\$ 19,021,800	\$ -	\$ 19,021,800	\$ -	\$ -	\$ -	\$ 19,021,800	\$ -
Transportation	\$ 94,249,000	\$ -	\$ -	\$ 27,783,664	\$ 3,506,472	\$ -	\$ 31,290,136	\$ (62,958,864)
Total	\$ 223,280,449	\$ 93,049,449	\$ 35,982,000	\$ 27,783,664	\$ 3,506,472	\$ -	\$ 160,321,585	\$ (62,958,864)

Calculated by ECONorthwest based on various infrastructure cost estimates (see citation on Exhibit 2).

Exhibit 3 shows a table similar to Exhibit 2, except that it is specific to the SCMAA rather than the total South Cooper Mountain area. The key conclusions are the same for the SCMAA. Parks, water, and sanitary sewer are projected to be entirely funded by SDCs. Stormwater infrastructure is projected to be entirely funded by a new Regional Facility Fee, and transportation infrastructure has a sizable funding gap, as the projected level of funding from TDT and MSTIP is insufficient to cover the local share of project costs.

Exhibit 3. SCMAA infrastructure costs and estimated funding sources

Infrastructure Type	Estimated Cost	Funding Source					Total	Funding Gap
		SDC	RFF	TDT	MSTIP			
Parks	\$ 7,750,000	\$ 7,750,000	\$ -	\$ -	\$ -	\$ -	\$ 7,750,000	\$ -
Water	\$ 7,814,516	\$ 7,814,516	\$ -	\$ -	\$ -	\$ -	\$ 7,814,516	\$ -
Sanitary Sewer	\$ 9,486,651	\$ 9,486,651	\$ -	\$ -	\$ -	\$ -	\$ 9,486,651	\$ -
Stormwater, pipe	\$ 6,480,100	\$ -	\$ 6,480,100	\$ -	\$ -	\$ -	\$ 6,480,100	\$ -
Stormwater, ponds	\$ 7,952,300	\$ -	\$ 7,952,300	\$ -	\$ -	\$ -	\$ 7,952,300	\$ -
Transportation	\$ 47,053,000	\$ -	\$ -	\$ 11,931,343	\$ 1,519,766	\$ -	\$ 13,451,109	\$ (33,601,891)
Total	\$ 86,536,567	\$ 25,051,167	\$ 14,432,400	\$ 11,931,343	\$ 1,519,766	\$ -	\$ 52,934,676	\$ (33,601,891)

Calculated by ECONorthwest based on various infrastructure cost estimates (see citation on Exhibit 2).

In the following sections of this memorandum, we describe the results of the early funding analysis for each type of infrastructure in greater detail.

Parks

Exhibit 4 lists specific park infrastructure projects identified for South Cooper Mountain, including estimates of project costs. Parks projects are divided into two categories: community parks and neighborhood parks, with community parks being larger facilities intended to serve residents of a broader geographic area. The only community park planned for South Cooper Mountain is slated to be in the URA, which results in the majority of the parks project costs being attributed to the URA (\$25.6 million out of \$34.5 million).

Exhibit 4. South Cooper Mountain parks cost estimates

	SCMAA	URA	NCM	Total
Acres				
Community Parks	0.0	18.0	0.0	18.0
Neighborhood Parks	10.0	8.0	1.5	19.5
Total	10.0	26.0	1.5	37.5
Cost				
Community Parks	\$ -	\$ 19,350,000	\$ -	\$ 19,350,000
Neighborhood Parks	\$ 7,750,000	\$ 6,200,000	\$ 1,162,500	\$ 15,112,500
Total	\$ 7,750,000	\$ 25,550,000	\$ 1,162,500	\$ 34,462,500

Source: Angelo Planning Group. Park Acreages and Costs – updated 120913.xlsx. From Becky Hewitt. December 9, 2013.

Tualatin Hills Parks and Recreation District (THPRD) is responsible for providing park infrastructure in South Cooper Mountain. Representatives of THPRD were interviewed to discuss funding for new parks in the area. Key findings from this interview, include:

- SDCs are the only funding source that can be counted on for park projects in South Cooper Mountain. Any funding from grants and general obligation bonds would be speculative.
- SDCs from development within South Cooper Mountain should cover capital costs in the area, as SDCs are based on the cost to provide a fixed level of service for new development. SDCs generated in the area should actually exceed the total project costs in the area, as these SDCs are also intended to contribute to district-wide facilities like an aquatic center.
- A community park is desired for SCMAA, but may not be required, if neighborhood parks are improved/expanded. Opportunities to co-locate park facilities with schools may further offset the need for a community park.

THPRD levies an SDC on new development for parks. The rate of the SDC varies depending on the type of development. The following rates were used to forecast SDC revenue for South Cooper Mountain: \$5,524 per single-family home, \$4,131 per unit of multifamily residential, and \$143 per employee for commercial development, as determined by THPRD’s employee formula.³

Exhibit 5 shows projected SDC revenue generated by development in South Cooper Mountain in comparison to project costs for each subarea. Based on the projected level of development in South Cooper Mountain, we forecast \$38,446,123 in parks SDC revenue would be generated. This is slightly more than the \$34,462,500 in project costs in the area. Note that SCMAA and NCM appear to generate substantially more SDC revenue than is needed for parks projects to serve development in those areas, whereas the URA appears to have a substantial funding gap. This is caused by the planned 18-acre community park in the URA, which will be a regional facility, serving residents of the entire South Cooper Mountain area and beyond.

Exhibit 5. South Cooper Mountain parks SDC estimates

	SCMAA	URA	NCM	Total
SDC Revenue	\$ 16,237,273	\$ 19,667,810	\$ 2,541,040	\$ 38,446,123
Project Costs	\$ 7,750,000	\$ 25,550,000	\$ 1,162,500	\$ 34,462,500
Surplus Revenue (or funding gap)	\$ 8,487,273	\$ (5,882,190)	\$ 1,378,540	\$ 3,983,623

Source: ECONorthwest

This early funding analysis suggests that the current parks SDC should be sufficient to cover all parks project costs in South Cooper Mountain, while generating surplus SDC revenues that can contribute to district-wide facilities.

³ City of Beaverton. “System Development Fees (SDC).” Revised Feb. 2014.

Water

Exhibit 6 lists specific water infrastructure projects identified for South Cooper Mountain. These projects include all water lines with pipe diameters of 12" or more. Smaller pipes are assumed to be funded entirely by private developers and therefore are not included in this early funding analysis. Costs are allocated to each subarea based on the physical location of the pipe, and not based on the portion of pipe capacity used by development within that subarea. For example, development in NCM may require water lines to extend up through the URA. In Exhibit 6, these project costs would be attributed to the URA, and not NCM. Total project costs for all subareas are forecast to be \$20.1 million.

Exhibit 6. South Cooper Mountain water infrastructure cost estimates

Pipe Diameter	SCMAA	URA	NCM	Total
Length (Feet)				
12"	0	3,783	0	3,783
16"	8,828	11,541	7,927	28,296
20"	0	10,483	0	10,483
24"	11,864	4,951	0	16,815
Cost				
12"	\$ -	\$ 904,137	\$ -	\$ 904,137
16"	\$ 2,357,076	\$ 3,081,447	\$ 2,116,509	\$ 7,555,032
20"	\$ -	\$ 3,920,642	\$ -	\$ 3,920,642
24"	\$ 5,457,440	\$ 2,277,460	\$ -	\$ 7,734,900
Total	\$ 7,814,516	\$ 10,183,686	\$ 2,116,509	\$ 20,114,711

Source: David Evans and Associates, Inc. memorandum on "Water System Scenario Evaluation – Summary Findings and Planning Level Cost Estimates." From Steven Harrison. To South Cooper Mountain Technical Advisory Committee. December 19, 2013.

The City of Beaverton would be responsible for providing water service to the South Cooper Mountain area. The City levies an SDC on new development to pay for water infrastructure. The SDC rate, effective February 1st, 2014, varies depending on the size of the water meter, ranging from \$5,293 for a 5/8-inch meter, up to \$30,497 for 1.5-inch meter.⁴

Exhibit 7 shows projected water SDC revenue generated by development in South Cooper Mountain. Total SDCs generated in each subarea are anticipated to exceed project costs in those subareas. In total, the area is expected to generate \$42.0 million in SDC revenue, compared to \$20.1 million in project costs, resulting in surplus SDC revenues of \$21.9 million.

Exhibit 7. South Cooper Mountain water SDC revenue projections

	SCMAA	URA	NCM	Total
SDC Revenue	\$ 18,192,041	\$ 21,346,669	\$ 2,434,780	\$ 41,973,490
Project Costs	\$ 7,814,516	\$ 10,183,686	\$ 2,116,509	\$ 20,114,711
Surplus Revenue (or funding gap)	\$ 10,377,525	\$ 11,162,983	\$ 318,271	\$ 21,858,779

Source: ECONorthwest

⁴ City of Beaverton. "Exhibit 2 – Current Water SDCs and Revised." From Barnett, Brion, Project Engineer, Public Works Department. December 3, 2013.

This early funding analysis suggests that the current water SDC should be sufficient to cover all parks project costs in South Cooper Mountain, while generating surplus SDC revenues that can contribute to district-wide facilities.

Sanitary Sewer

Exhibit 8 lists specific sanitary sewer infrastructure projects identified for South Cooper Mountain. Projects include gravity sewer lines of 8-inch diameter or more, as well as pump stations needed to serve the area. As with the costs for water pipes (described in the previous section), costs for sewer lines are allocated to each subarea based on the physical location of the pipe, and not based on the portion of pipe capacity used by development within that subarea. Costs for pump stations, however, are not allocated to specific subareas. Total sanitary sewer project costs are estimated to be \$38.5 million.

Exhibit 8. South Cooper Mountain sanitary sewer infrastructure cost estimates

	SCMAA	URA	NCM	Total
Gravity Sewer Lines				
8"	\$ 4,104,225	\$ 15,780,420	\$ 10,011,300	\$ 29,895,945
12"	\$ 3,465,162	\$ 2,738,977	\$ -	\$ 6,204,139
15"	\$ 1,917,264	\$ 454,890	\$ -	\$ 2,372,154
Pump Stations				
Tile Flat Rd.				XXXXX
River Terrace				XXXXX
Total	\$ 9,486,651	\$ 18,974,287	\$ 10,011,300	\$ 38,472,238

Source: David Evans and Associates, Inc. memorandum on "Sanitary Sewer Scenario Evaluation - Summary Findings and Planning Level Cost Estimates." From Steven Harrison. To South Cooper Mountain Technical Advisory Committee. December 19, 2013.

The City of Beaverton collects an SDC on new development to pay for sanitary sewer infrastructure. However, 96% of this SDC revenue is passed on from the City to Clean Water Services (CWS) who would have responsibility for providing sanitary sewer infrastructure for South Cooper Mountain. Conversations with representatives of CWS indicated that the provision of sanitary sewer infrastructure should not be a problem in South Cooper Mountain. CWS collects SDC revenue from a relatively large geographic region, which provides them with the financial capacity to build new infrastructure and have it in place as private development occurs throughout the region. In other words, sanitary sewer infrastructure funding in South Cooper Mountain is not dependent solely on revenues generated by new development in the area.

Despite the fact that CWS does not require South Cooper Mountain to generate enough SDC revenue to cover the costs of infrastructure in the area, we still forecast the amount of sanitary sewer revenue that would be generated in South Cooper Mountain. These revenue estimates include both new development, and existing homes in the area on septic systems that are forecast to hook up to the sewer system in the future, when their septic systems eventually fail.

Exhibit 9 shows projected sanitary sewer SDC revenues generated in South Cooper Mountain by subarea, relative to the projected infrastructure costs in those subareas. Development in

South Cooper Mountain should generate \$39.8 million in SDCs, which is more than the estimated \$38.5 million in estimated project costs.

Exhibit 9. South Cooper Mountain sanitary sewer SDC revenue projections

	SCMAA	URA	NCM	Total
SDC Revenue	\$ 16,497,600	\$ 19,982,400	\$ 3,288,000	\$ 39,768,000
Project Costs	\$ 9,486,651	\$ 18,974,287	\$ 10,011,300	\$ 38,472,238
Surplus Revenue (or funding gap)	\$ 7,010,949	\$ 1,008,113	\$ (6,723,300)	\$ 1,295,762

Source: ECONorthwest

This early funding analysis suggests that the current sanitary sewer SDC should generate sufficient revenue to cover project costs in South Cooper Mountain, while generating a small amount of surplus revenues that could be used to fund projects elsewhere in the region.

Furthermore, CWS does not have a policy requiring development within any specific area to “pay for itself” with SDC revenues, and representatives of CWS provided assurances that they should have sufficient SDC funds to cover all master plan projects in South Cooper Mountain and elsewhere in their service area.

Stormwater

Exhibit 10 lists specific stormwater infrastructure projects planned for South Cooper Mountain. These projects include both stormwater detention facilities (ponds), and conveyance facilities (pipes). The total cost for stormwater infrastructure in South Cooper Mountain is estimated to be \$36.0 million.

Exhibit 10. South Cooper Mountain stormwater infrastructure cost estimates

	SCMAA	URA	NCM	Total
Detention Facilities	\$ 7,952,300	\$ 9,739,100	\$ 1,330,400	\$ 19,021,800
Conveyance Facilities	\$ 6,480,100	\$ 7,474,000	\$ 3,006,100	\$ 16,960,200
Total	\$ 14,432,400	\$ 17,213,100	\$ 4,336,500	\$ 35,982,000

Source: David Evans and Associates, Inc. memorandum on “Stormwater and Water Quality Scenario Summary.” From Claudia Sterling. To South Cooper Mountain Beaverton Core Project Team. November 5, 2013 (draft).

Note: Detention facilities cost estimates do not include the cost of land acquisition.

Traditionally, detention facilities have been the responsibility of private developers, with individual developers building detention facilities onsite that are sufficient to manage the stormwater generated on that individual property. Under the traditional model, the cost of stormwater detention facilities would be excluded from an early funding analysis like this.

However, CWS and the City of Beaverton are planning on taking a different approach to the provision of stormwater infrastructure in South Cooper Mountain. Our analysis assumes a regional stormwater facility approach is used, in which large-scale dry detention ponds are used to manage stormwater for the surrounding areas, which could include numerous private property owners.

Note that the City does collect a stormwater SDC on new development, equal to \$1,057 per single-family home, or for every 2,640 SF of impervious surface area for multifamily and commercial development (with an expected effective date of July 2014). Exhibit 11 shows

projected stormwater SDC revenue generated by development in South Cooper Mountain. SDC revenues are projected to fall far short of estimated project costs, with only \$6.8 million in revenue, compared to \$36.0 million in costs. This is expected, however, since the current SDC rate is based on the traditional approach to stormwater management, where private developers would build their own facilities on site. Because the proposed regional stormwater facilities would be shared by multiple property owners, potentially developing their land over a long period of time, they require a different method of funding: a regional facility fee.

Exhibit 11. South Cooper Mountain stormwater SDC revenue projections

	SCMAA	URA	NCM	Total
SDC Revenue	\$ 2,903,752	\$ 3,979,605	\$ 486,220	\$ 7,369,577
Project Costs	\$ 14,432,400	\$ 17,213,100	\$ 4,336,500	\$ 35,982,000
Surplus Revenue (or funding gap)	\$ (11,528,648)	\$ (13,233,495)	\$ (3,850,280)	\$ (28,612,423)

Source: ECONorthwest

The concept of a regional facility fee is relatively new, and is currently being used in only one other location in the Portland region, North Bethany. CWS adopted a Regional Stormwater Management Charge for North Bethany. The methodology applied to North Bethany, could also be applied to South Cooper Mountain to fund stormwater infrastructure. This methodology is based on the total capital cost of all regional stormwater facilities in the area, and the total stormwater treatment volume that would be handled by these facilities. Note that stormwater conveyance facilities are excluded from this cost estimate, and are assumed to be the responsibility of private developers. The regional stormwater management charge is also adjusted annually for inflation of previous project costs, to compensate CWS for the time value of money.

In a nutshell, the regional stormwater management charge for North Bethany determines the volume of stormwater that a specific development would contribute to the system as a percentage of the total stormwater capacity of the system, and assesses that development a proportional share of the regional stormwater facility system costs. Because this method is based on the actual costs incurred, the calculation balances itself out, so that development should always pay for itself. If a similar approach were to be adopted for South Cooper Mountain, further analysis would be required to estimate the magnitude of the new regional facility fee on a per household basis.

It is worth noting that the regional stormwater management approach is not without challenges. Several private developers on the Finance Task Force voiced concerns about the regional stormwater management approach based on their experiences with North Bethany. These concerns include:

- **Coordination among property owners.** If one property owner is ready to develop, but has to cross through other properties to connect to the regional stormwater retention pond, and if those property owners are not ready to develop, then it can cause costly development delays.

- **Prevailing wage.** Because the regional facilities are paid for with public money, they must be constructed using prevailing wage rates, which can increase project costs 30% or more.
- **Upfront funding.** These large-scale shared facilities need to be in place prior to the surrounding development. That means that someone needs to provide upfront funding, to be reimbursed by subsequent development. In North Bethany, CWS provided \$1 million of seed money to jump start the first regional stormwater facility, but no such seed money has been identified for South Cooper Mountain.
- **Size and location.** While regional facilities may require fewer acres overall, compared to the traditional site-specific approach, the large-scale facilities do require large, consolidated areas of land. This land is then unavailable for private development. With the traditional approach, stormwater facilities could be small, and tucked away on otherwise unusable portions of a site.

This early funding analysis suggests that one way or another, there will be sufficient funding for stormwater facilities. Either a regional facility fee would be implemented that would charge a rate sufficient to cover actual project costs, or a traditional approach would be used, resulting in stormwater infrastructure being built on a property-specific basis, which would become a private cost, excluded from the South Cooper Mountain Infrastructure Finance Plan. Further discussion is required between property owners, private developers, the City, and CWS to determine which approach will ultimately be used, or potentially a combination of both approaches.

Transportation

More than two-dozen individual transportation projects have been identified for the South Cooper Mountain area. For a complete list of these projects, refer to the DKS memorandum on “Transportation Findings,” dated February 10, 2014. Exhibit 12 lists the categories of transportation infrastructure projects planned for South Cooper Mountain, including the “local” and non-local share of project costs. Note that the local share is calculated based on the share of PM peak-hour traffic with a trip-end in the South Cooper Mountain area. The non-local share refers to broader regional traffic demand, calculated as the portion of costs attributed to PM peak-hour traffic without a trip-end in South Cooper Mountain. Of the \$193.1 million in total project costs, \$64.7 million is attributed to local, South Cooper Mountain demand.

Exhibit 12. South Cooper Mountain transportation infrastructure cost estimates

	"Local" Share	Non-Local	Total
Projects Constructing or Realigning Streets On-Site	\$ 34,989,000	\$ 34,096,000	\$ 69,085,000
Projects Improving Existing Intersections	\$ 3,827,000	\$ 678,000	\$ 3,242,000
Projects Upgrading Existing County Streets to Urban Streets	\$ 19,555,000	\$ 6,920,000	\$ 26,475,000
Projects to Construct Community Shared-Use Paths or Enhanced Street Crossings	\$ 6,286,000	\$ -	\$ 6,285,000
Projects Identified in Previous Studies or Plans	\$ 30,856,000	\$ 57,129,000	\$ 87,985,000
Total	\$ 95,513,000	\$ 98,823,000	\$ 193,072,000

Source: DKS memorandum on "Transportation Findings." From Carl Springer, Kevin Chewuk. To South Cooper Mountain Technical Advisory Committee. February 10, 2014.

Exhibit 13 provides further detail on the allocation of the local share of transportation project costs in South Cooper Mountain. The SCMAA has the highest share of project costs, at \$47.1 million. We repeat that the allocation of project costs for transportation infrastructure is based on the share of total traffic with a trip-end in the stated geographic area. This is not the same as the portion of the project that is physically located within the geographic area, or the specific projects that must be in place for new development to occur.

Exhibit 13. South Cooper Mountain "local" transportation infrastructure cost estimates by subarea

	SCMAA	URA	NCM	Total "Local" Share
Projects Constructing or Realigning Streets On-Site	\$ 19,087,000	\$ 14,392,000	\$ 1,510,000	\$ 34,989,000
Projects Improving Existing Intersections	\$ 1,263,000	\$ 2,365,000	\$ 199,000	\$ 3,827,000
Projects Upgrading Existing County Streets to Urban Streets	\$ 10,830,000	\$ 7,542,000	\$ 1,183,000	\$ 19,555,000
Projects to Construct Community Shared-Use Paths or Enhanced Street Crossings	\$ 2,727,000	\$ 3,194,000	\$ 365,000	\$ 6,286,000
Projects Identified in Previous Studies or Plans	\$ 13,146,000	\$ 13,963,000	\$ 3,747,000	\$ 30,856,000
Total	\$ 47,053,000	\$ 41,456,000	\$ 7,004,000	\$ 95,513,000

Source: DKS memorandum on "Transportation Findings." From Carl Springer, Kevin Chewuk. To South Cooper Mountain Technical Advisory Committee. February 10, 2014.

The arterial transportation infrastructure in the South Cooper Mountain area will largely be the responsibility of the County (and to a lesser extent, the City) to build and maintain. Thus, County and City representatives were interviewed, and invited to participate in the Finance Task Force. Although Metro and the Oregon Department of Transportation (ODOT) do not have an obligation to build or maintain any of the projects planned for South Cooper Mountain, they too were interviewed, to identify any potential regional or state funding sources. These stakeholder interviews and Finance Task Force meetings informed the results of this Early Funding Analysis for transportation infrastructure.

The State and Metro are unlikely to play a significant role in transportation funding for the area. Metro's small role in infrastructure funding is limited to projects with an emphasis on freight movement and industrial access, which is not the case for the projects identified for the South

Cooper Mountain area. The State invests in infrastructure projects predominantly through the Statewide Transportation Investment Program (STIP). Historically, STIP funds have predominantly been used on facilities owned by ODOT, which is not the case for the projects identified for the South Cooper Mountain area.

Transportation Development Tax (TDT) and Major Streets Transportation Improvement Program (MSTIP) are the two County sources that are most likely to be used to fund infrastructure improvements in South Cooper Mountain. However, these funds are used on projects throughout the County, and the demand for these funds greatly exceeds the available revenue. Additionally, it is a political decision to determine which projects receive TDT and MSTIP funding, and there are no guarantees. Some projects remain on the list, waiting to receive funding for many years.

Representatives of Washington County emphasized that even the TDT and MSTIP generated from development within the South Cooper Mountain area could not be invested 100% on projects to serve South Cooper Mountain, as residents of the area will naturally drive on roads and highways elsewhere in the County, thus, increasing demand for transportation infrastructure outside of South Cooper Mountain. Nonetheless, we forecast the amount of TDT and MSTIP that would be generated in the area, to provide context for the amount of funding South Cooper Mountain should expect to receive from the County.

TDT is essentially a countywide SDC. It is a one-time charge on new development. The amount of the TDT charge varies based on the type of development. The fully phased-in, July 1st, 2015 rate is \$4,919 for condos/townhouses, \$5,381 for apartments, and \$8,225 for single-family detached homes. For commercial development, the rate varies based on the anticipated trip generation of the development. For example, the rate for shopping centers is \$11,293 per 1,000 SF of gross floor area, compared to \$8,632 for a general office building. TDT revenue projections from new development in SCM (assuming full build out) would result in \$27.8 million, including \$11.9 million from the SCMAA.

MSTIP is funded through a portion of the County's permanent property tax rate, resulting in an effective property tax rate of \$0.6520 per \$1,000 of assessed value. MSTIP generated \$32,721,404 countywide in FY 2013-14. Because MSTIP is property tax based, the amount generated by South Cooper Mountain will change over time, depending on the pace that new units are developed, and the value of those new units.

For this Early Funding Analysis, we used relatively broad assumptions for estimating MSTIP revenue. Assuming an average real market value of \$300,000 per unit (including land value), the South Cooper Mountain area would be expected to generate \$1,275,000 per year in MSTIP revenue at full build out. However, full build out of South Cooper Mountain is expected to take decades, and it is uncertain when and if South Cooper Mountain would achieve this level of MSTIP generation. If we limit our analysis to just the SCMAA, which is expected to develop first, then the area would generate \$553,000 per year in MSTIP at full build out. If this development were to be built in equal amounts over a 10-year period, then that would result in

\$3.0 million of MSTIP revenue generated over that 10-year period, followed by \$553,000 per year in all future years.

This Early Funding Analysis does not attempt to show a detailed funding and finance plan for all transportation projects in all areas of South Cooper Mountain. Additional work is needed to identify what dollar amounts from what funding sources are politically acceptable for which projects. However, this Early Funding Analysis does suggest one hypothetical funding package to cover the local share of transportation infrastructure costs for the SCMAA.

Exhibit 14 shows a hypothetical funding plan for the \$47.1 million local share of SCMAA transportation infrastructure. For TDT, we assumed 75% of the total TDT expected to be generated at full build out. For MSTIP, we assumed 100% of the MSTIP that would be generated over the first 25 years, based on a linear 10-year absorption pattern. Additionally, we assumed a new supplemental SDC equal to \$5,000 per housing unit.

Exhibit 14. South Cooper Mountain Annexation Area, hypothetical funding plan for local share of transportation infrastructure costs

	\$ Amount
Revenue Source	
TDT	\$ 17,897,014
MSTIP	\$ 11,329,162
New SDC	\$ 18,022,178
Total Revenue	\$ 47,248,354
Local Costs	\$ (47,053,000)
Surplus Revenue (or funding gap)	\$ 195,354

Source: ECONorthwest

This hypothetical funding plan would provide sufficient funding for the local share of SCMAA, if all parties agree that these funding amounts from these funding sources are reasonable. This assumption requires further discussion among the City, County, and local property owners and developers. We do not assert that this is the only funding solution for transportation projects in the SCMAA. Instead it is an illustration of one possible solution.

It is important to keep in mind that the local share of project costs associated with the SCMAA is not the same number as the cost of projects that need to be built to facilitate development in the SCMAA. Ultimately, we will need to look at the total project costs (not just the local share), and for a prioritized list of projects that need to be built to serve development in the SCMAA.

Furthermore, this hypothetical funding plan only deals in total dollar amounts. A more nuanced finance plan will need to consider the timing of revenues, and if loans or bonds are used to finance project costs, then additional revenues will be needed to cover interest payments over time.

In short: there is more work to be done to create a feasible finance plan for transportation infrastructure in South Cooper Mountain. The key stakeholders for South Cooper Mountain will need to wrestle with these issues in order to have a financially feasible plan for

transportation infrastructure. These stakeholders (including both public and private partners) will need to discuss and decide upon:

- What portion of TDT generated in the area should be applied to the local share of infrastructure costs?
- What portion of MSTIP generated in the area, and over what period of time, should be applied to the local share of infrastructure costs?
- What other funding tools could be applied to the South Cooper Mountain area to generate additional local revenue for projects?
- Is it necessary to identify 100% of the funding for all of the projects assumed to be needed for South Cooper Mountain, or can some of these projects be viewed as optional, lower-priority projects dependent upon future funding capacity?
- Are we using the right method to identify the local portion of project costs, or should the local share be different?
- Even if we are able to solve the funding gap for the local share of project costs, how will the County and City fund the non-local share?

This early funding analysis suggests that there is insufficient revenue to pay for all transportation projects in the South Cooper Mountain area. Additional work will be required to determine a financially feasible strategy for providing transportation infrastructure.

Implications

- Parks, water, and sanitary sewer infrastructure appear to be financially feasible using current SDCs, and no additional analysis is anticipated for these types of infrastructure.
- Stormwater infrastructure costs are planned to be covered through implementation of a new Regional Facility Fee, but questions remain about the feasibility of such a fee for South Cooper Mountain. If an acceptable Regional Facility Fee cannot be agreed upon, then a traditional approach to stormwater management can be taken, in which private developers would provide their own infrastructure onsite, and stormwater costs would not be included in the final South Cooper Mountain Infrastructure Finance Plan.
- Transportation infrastructure shows a funding gap. Current local funding sources are inadequate to pay for the full list of identified projects. This is exacerbated by the fact that revenue generated by development in South Cooper Mountain will also need to be used on projects elsewhere in the county. The bulk of the work remaining on the Infrastructure Finance Plan will be to align transportation revenues and project costs to arrive at a financially feasible plan.