Chapter 4: Meeting Current and Future Needs

A city or county is responsible to provide capital facilities and public services at the level of service standards adopted. Therefore, the city or county must meet the needs of current residents but also plan for accommodating the future need based on projected population and employment growth. Chapter three reviewed methods to forecast future needs. This chapter will cover methods to determine what investments will be needed to ensure future needs can be met, and what opportunities there are now to plan for or minimize those costs.

Overview: Using Land Use and Capital Facilities Analysis Together

Identifying proposed locations and capacity of future facilities is a requirement of RCW 36.70A.070(3)(c). The land use element shows the location and intensity of future growth patterns, as well as the total amount of new growth the plan assumes. Both the amount and location of growth will drive the need for new facility investments.

As noted earlier, some facilities are constrained in future placement due to geographical necessity. Knowing in advance where these types of facilities will be needed can help the city or county acquire land. Determining future capacity needed for the various facilities provides the city or county with a clearer idea of what type and how much capacity will be needed and also provides more time to meet the financial obligation that comes with those future capital facility needs.

Managing Capital Facilities Costs with your Land Use Element

Because the location, in addition to the amount, of new growth can drive the need for investments, the capital facilities needs analysis is an important tool for showing the financial consequences of different growth strategies. Identifying projects before the community has made irrevocable land use commitments can avoid making unnecessary investments and assure the adopted growth strategy is affordable.

In 2009 the City of East Wenatchee had identified the need to expand the Urban Growth Area (UGA) in order to meet projected population growth. However, there were concerns over the ability to provide and pay for the needed urban services and facilities. In 2012 the City obtained a competitive grant to prepare a combined capital facilities plan, consolidating information from several special purpose districts and Douglas County. The major limiting factor impacting the ability to obtain urban densities within portions of the UGA related primarily to the provision of water and sanitary sewer (predominantly sewer). The approach was to compile and map the existing infrastructure of the various providers, as well as planned improvements, in order to see where the gaps existed. A new Land Capacity Analysis was completed for this project using the 2012 Medium Series OFM Population Projection (previously the high series had been used) resulting in a smaller UGA expansion being considered. Ultimately, a preferred alternative was developed from public workshops, land use map amendments, the combined capital facilities plan, and draft text amendments to the comprehensive plan. The City now has a smaller UGA expansion.
planned - and a phasing plan that will allow for provision of urban services and facilities from a multitude of service providers sequenced to accommodate growth within its UGA.

The City of Marysville recently updated the Capital Facilities Element of its Comprehensive Plan. The City worked with its major city departments to review the capital projects necessary to support the land use element. This review included transportation, water, sewer, stormwater, recreation, and city facility needs coupled with a review of financing for each project. The city also updated its inventory of city owned property as part of the CFP project to ensure that a comprehensive review of assets occurred. The city designed and developed a database for the purpose of maintaining the updated CFP, which will be utilized by staff in each of the departments involved. The database incorporates a decision matrix tool to help decision makers evaluate the priorities of the respective capital projects. The database is designed for tracking expenditures and identifying shortfalls so that project needs may be clearly understood by decision makers.

**Three Drivers of Capital Facilities Need**

There are three main drivers that make up need. The first is **operating and maintaining existing facilities**, including planning for long term costs such as replacement. Careful consideration of reserve contributions and the long term financial viability of maintaining the infrastructure are important. For facilities paid for with user rates (such as water and sewer), an analysis of user rates is recommended to ensure users are paying their fair share of operation and maintenance costs.

**Addressing any existing deficiencies** is also a driver of need. Any facilities or services that are not provided at the adopted level of service standard must be brought up to standard. Consider what is needed to bring an area, facility, or service up to standard. Deficiencies may also stem from the need to upgrade existing facilities to meet current regulatory or safety standards. Stormwater standards, Americans with Disabilities Act standards, flood proofing, or seismic safety standards are examples of newer requirements that could require redesign or upgrades as existing facilities are replaced.

Another possible impact to meeting current and future need is the potential for increased or stricter regulatory requirements, specifically for water and sewer. These unknowns are by their very nature difficult to anticipate or plan for. However, cities and counties should ensure any new requirements are factored in to functional plans and comprehensive plans as they are updated. An example is the recent changes to water quality standards to protect shellfish and other marine life in Puget Sound.

The third driver of need is **new growth**. Residential, commercial, industrial, and public lands have varying needs for capital facilities and public services. New growth can require upsizing of existing infrastructure, extension of services into undeveloped lands, or require costly improvements to bring services to an area that is currently below adopted LOS.
Allowed densities (both minimums and maximums) can influence the cost to serve population. Estimates for commercial and industrial intensity should be considered as well. For example, provision of adequate fire flow can be different based on the type of use (retail, manufacturing, distribution) or tenant (restaurant, high pile storage). Or allowing structures to exceed a certain building height may result in the need to purchase a ladder truck to fight potential fires.

New growth drives demand for capital facilities through the amount of growth, its location and its timing. Your community will need some facilities to accommodate the forecasted growth regardless of where in the community the growth occurs. Water and sewer plant capacity is typically about the same per capita without regard to the location of growth. However, the need for other facilities may change considerably depending on where in your community growth occurs. Development on new land becomes particularly expensive outside of a currently served drainage basin.

Each city and county should account for these needs while also keeping in mind that the new population becomes future rate payers. The rate structure should be reconsidered periodically to ensure it can accommodate needed operation and maintenance including repairs and replacement. Assumptions should be conservative – relying on an ambitious amount of growth to help fund infrastructure can be difficult to address if it does not occur, especially if it results in the need for significant rate increases for the users.

**Developing project lists from needs**

Developing the list of projects for all of the capital facilities generally comes from the more specialized functional plans (Water System Plans; General Sewer Plans; Transportation or Transit Plans; Parks, Recreation, and Open Space Plans; etc.). Improvements or projects for public services may come from other sources too. For example, a city or county may have conducted a Space Needs Analysis study to consolidate multiple administration buildings into one location or to add more space at certain existing facilities to accommodate changed circumstances. Or a city or county may have an adopted Level of Service standard in place for the number of police officers or square footage of library space per every 1,000 residents and it is time to accommodate the growth that has occurred.

Individual projects from a functional plan will usually address new capacity, existing deficiencies and system preservation to one degree or another. When considering projects, it is important to ensure they factor in both capacity to meet existing demand, and capacity for new growth. The added cost to increase capacity is lowest when existing facilities already need replacement. For example, adding capacity at a cost of $100,000 may appear the least expensive option to meet current needs – and an additional $50,000 expense later to meet future growth demand. However, if anticipated growth is considered at the same time, there may be an option that is better financially which allows for a one time expenditure of $120,000 in the present for an alternative that will meet both current and future needs.
A critical component of capital facilities planning is to compile cost estimates of needed projects and services. Cost estimates are for the entire planning horizon, not just for the 6-year CIP. The level of detail will not be the same as what is necessary for the CIP, especially for the last few years of the plan, but cities and counties – and the special purpose districts that provided services necessary to support development – must have a general idea of what is needed to fully implement the vision of the comprehensive plan, how much it will cost, and how those improvements will be funded. A 6-year CIP is project specific, while the remaining balance of the 20-year CFP has cost estimates for services by area.

Ultimately, all of the needed capital facility improvements should be included and planned for simultaneously so the overall need is known and so that priorities and funding realities can be accommodated. A consolidated list of needs also helps identify opportunities to combine projects more efficiently. The goal is to use the information on total needs to allow decision making that meets current needs and puts the city or county in the best position possible to meet its future needs as well.

Funding to cover all desired projects and improvements is not usually readily available. Priorities and choices must be made. To help balance these issues, the City of Redmond adopted a “Vision Blueprint” which is a long term Capital Investment Strategy (CIS). It serves as a hybrid document, linking both planning and budgeting for capital facilities. The CIS “...extends the City’s capital planning program in showing what needs to happen to get the City where it wants to be – and what it will cost....It can be thought of as a strategy of identifying how the long range plan can be supported with adequate facilities.” The CIS includes a list of identified capital projects and programs needed to implement the comprehensive plan, estimated costs, and anticipated strategic actions. The CIS also groups projects into near-, mid-, and long-term. Uncertainty about costs and funding increases further out in the time line, however the first six years is consistent with the City’s budget and adopted Capital Improvement Plan. The strategy serves to help the city meet its current needs while making longer term decisions in a manner that keeps them on track to implement the vision of the comprehensive plan over the life of the plan.

Alternatives to new facilities
New facilities don’t necessarily have to be built to accommodate new growth. Cities and counties can consider the following options – either in lieu of new facilities or as a measure to delay the need for the new facility:

Demand Management – Consider options to reduce or manage demand such as tiered rate structures for water use (e.g. a flat rate for a certain amount of water but beyond which the rate increases), limiting outdoor watering during summer/drier months (e.g. odd numbered addresses water on certain days of the week, even numbered addresses on others).

Revised level of service – Cities and counties may revise the level of service standard for certain areas or services. For example, it is common to have a lower LOS for transportation in downtowns or large commercial areas than in residential neighborhoods. Some
jurisdictions may not have revisited the original levels of service standards set. It is wise to look at LOS standards in light of current fiscal realities. Adopted LOS standards should be realistic and achievable over the life of the plan. Considering revisions to adopted levels of service is an excellent opportunity to collaborate with the public to discuss costs of services and what the public is willing to pay for them.

**Land Use Revisions** – In some instances it may be appropriate to modify land use designations, zoning districts, or development regulations. Some cities have portions of the UGA that are not currently served by sanitary sewer. Generally in these situations the jurisdiction has standards requiring that any division of land in the area must be done in such a way as to demonstrate future development ability at anticipated densities once sewer is available. However, in these instances the city should have a plan in place for when the full range of urban services will be provided and how they will be financed.

Alternatively, if there are areas with additional capacity available, cities may decide to allow more intense development there to take advantage of the “extra” capacity of the existing infrastructure.

**Potential for conservation measures** – Closely linked to demand management, conservation measures can also be used in some cases. For example, cities or counties may offer free water conservation kits to its customers, or even offer to install the devices for them, if water capacity is needed.

**Partnering/Connecting to another system (water or sewer); phasing** – In some cases it may be possible to partner with other service providers or connect to other systems. Phasing is also an option, to preclude the need to “leap frog” undeveloped or under-developed areas in order to serve land beyond it.

One such partnership is the LOTT Clean Water Alliance (LOTT). LOTT serves the cities of Lacey, Olympia, and Tumwater as well as Thurston County. The partnership came about to address regional water treatment needs. LOTT has programs addressing water conservation, reclaimed water, and pretreatment.

**Project Selection and Prioritization**

Project selection and prioritization are often done at the budgeting phase. It is important to identify which projects are most critical or when done in a timely manner will prevent a more significant investment being needed later. Functional plans often prioritize projects for the system the plan was designed for. Ideally, each city or county will have a process to:

- consolidate all of the identified needs from the variety of functional plans,
- review the consolidated list of projects, programs, etc. to determine that these projects, when completed, will provide facilities and services at the adopted LOS for the projected population,
- identify when the various projects will be needed
identify projects that can be grouped together to gain economies of scale (e.g. replacing water lines before or when street improvements are made)

develop policies to guide decision-makers so the adopted budgets implement the comprehensive plan over the planning horizon of the plan

The perils of ignoring system preservation
System preservation may be one of the most cost effective means of providing services. When assuming ownership of new facilities, cities and counties should plan for the longer term operation and maintenance needs, including repairs and ultimately replacement. While “greenfield” development may look attractive because the developers usually pay for the new roads or streets and other infrastructure, those facilities are then usually deeded over to a local government. Eventually those systems will need maintenance, upgrades, repairs, and replacement.

Deferred maintenance can save some money in years of significant financial constraint however, that deferred maintenance usually comes at a higher cost later on. Deferring needed maintenance can also reduce the lifespan of the investment.

Coulee City received significant financial assistance from the Public Works Trust Fund to repair leaking mains and install water meters in order to be able to create a use-based rate structure. The City was running out of capacity and realized old water mains were a big part of the loss - but that overuse by residents was also a factor.

Ideally rate structures should be set at a level that covers both operating costs as well as maintenance and system preservation. The starting point is to identify the scope and timing of system preservation investments, in addition to new capacity. Measures to maintain pavement, pipes, pumps, reservoirs, and other long term investments will help ensure those improvements are maximized throughout their useful life.

Asset Management
The International Infrastructure Manual defines the goal of asset management as, “meeting a required level of service in the most cost effective way through the planning, acquisition, operation, maintenance, rehabilitation and disposal of assets to provide for present and future customers.” The core components of asset management line up well with comprehensive planning and budgeting under the Growth Management Act, including planning to meet future need. There are programs and software that address asset management. And some asset management work focuses on certain systems, such as the Federal Highway Administration’s (FHWA) guidance for transportation systems. Here are just a few resources that may be useful:

New York State Department of Environmental Conservation
Handbook on Wastewater Management for Local Representatives (see Chapter 2)
Rural Community Assistance Partnership
Five things you can do to improve your utility’s financial health
The Basics of Financial Management for Small-Community Utilities
Checking in with other Comprehensive Plan Elements
Once the projects and estimated costs are known, it is a good time to look back to the desired future land use map and elements of the comprehensive plan. Before adopting the proposal, consider if it is realistic. Will the City or County be able to afford what is being proposed? If a community is proposing to grow into its obligations, is the level of new growth realistic? Will the city or county be able to meet these obligations if they are adopted? If not, it is necessary to consider other growth alternatives. There may be other options that make better use of the existing infrastructure.