



STUDY SESSION MEMORANDUM

TO: Mayor and Members of City Council

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DATE: June 27, 2024

SUBJECT: Area III-Planning Reserve
Urban Services Study (USS) – Preliminary Scenario Evaluations

EXECUTIVE SUMMARY

The purpose of this study session is to provide an update to Council on the progress of the Area III-Planning Reserve Urban Services Study (USS), review the service demand scenario assumptions and outcomes, and highlight any important considerations that have been identified through preliminary analysis.

The Urban Service Study (USS) is the first of three steps in exploring the potential feasibility of extending urban services and possible Service Area expansion into the Area III-Planning Reserve (Planning Reserve). Per the Boulder Valley Comprehensive Plan (BVCP), “the purpose of the study is to learn more about the feasibility and requirements to provide urban services to the area, and to understand potential phasing and logical areas of planning and potential expansion.”

This study was initiated in response to a Council priority that was identified in 2022. City Council's stated desire at that time was to complete the study prior to the next major update to the BVCP to inform a decision on whether to continue with the service area expansion process as a part of that update.

The USS will provide only an objective technical analysis of the feasibility, phasing, and potential costs of extending urban services into the Planning Reserve (Step 1). It will identify important policy considerations but will not make recommendations on how to address them. The outcomes of the study will help inform whether Planning Board and City Council wish to proceed with an evaluation of unmet community needs (Step 2) and then decide whether to initiate a Service Area expansion planning process (Step 3).

City staff, along with the AECOM consultant team, have completed an existing conditions report and created scenarios to analyze the cost and infrastructure requirements of varying levels of conceptual demand, all based on various assumed urban levels of development. The project team is currently working through the preliminary evaluations of the serviced demand scenarios to prepare initial outcomes and identify any considerations presented by each.

This memo includes an initial evaluation of the scenarios, representing varying degrees of service demand, along with two key discussion questions related to the evaluation. The purpose of this agenda item is to provide an update to City Council on project progress and collect feedback on the draft scenarios. Staff and the consultant will present information from the scenario testing but have not provided interpretation or analysis regarding policy or infrastructure cost implications at this time. This meeting is intended to give Council the opportunity to provide comments on the scenario assumptions and urban service areas that are being analyzed. Based on feedback, the AECOM team and staff will continue to develop more detailed analysis of each scenario related to the provision of the urban services to the Planning Reserve. The project team will present the final draft USS with this analysis on October 17, 2024, for review and acceptance.

QUESTIONS FOR COUNCIL

Staff has identified the following key questions to help guide Council's discussion:

- 1. Does Council have any questions or comments on the scenarios that have been developed to inform the analysis?*
- 2. Does Council have any questions or comments on the urban services/infrastructure areas that will be analyzed based on the scenarios?*

BACKGROUND

The Area III-Planning Reserve (Planning Reserve) is approximately 500 acres in size and was identified through the 1993 Area III Planning Project as the portion of Area III where the city maintains the option of expansion for future urban development in response to

priority community needs that cannot be met within the existing Service Area (Areas I and II). Nearly 200 acres of the 500 acres was acquired by the city and is designated for parks and related uses. Most of the remaining acreage is held in private ownership.

The process for Service Area expansion (i.e., conversion of the Planning Reserve to Area II which allows for annexation) was subsequently set in place in 1995 and is defined in the BVCP to ensure a methodical approach to potential expansion of the city into the Planning Reserve. In 2015, the process was revised to incorporate the Urban Services Study as the first step in the expansion process.

The Urban Service Study is the first of three steps in exploring the potential feasibility of extending urban services and possible Service Area expansion into the Planning Reserve. The USS will provide an objective technical analysis of the feasibility, phasing, and potential costs of extending urban services into the Planning Reserve (Step 1). It will identify important policy considerations but will not make recommendations on how to address them. If Council accepts the study, “the door is open” for Council and Planning Board to hold public hearings to consider including an evaluation of unmet community needs as part of an update to the Comprehensive Plan (Step 2). Council could also accept the study, yet decide not to proceed with Step 2 at this time. If Council chooses not to accept the study, “the door is closed” to considering an evaluation of unmet community need during the Comprehensive Plan update. Council still maintains the option to revisit acceptance of the USS again in the future to re-initiate the 3-step process. At the completion of Step 2, public hearings are held to determine if the unmet community needs are of sufficient priority to require Service Area expansion. If so, Planning Board and Council then have the option to initiate a Service Area expansion planning process (Step 3).

The USS is being led by the Planning & Development Services Comprehensive Planning team in collaboration with a consultant, AECOM, and various city departments directly responsible for providing urban services. The completed study will be reviewed by Planning Board and can be accepted by City Council, should they wish to move ahead with Step 2 of the process. The study is expected to be finished by Q4 2024, in advance of the next major update to the BVCP. The study will provide an analysis of baseline data to help the Boulder community and decision-makers understand the potential scope, extent and feasibility of expanding city services to the area.

The BVCP states that “adequate urban facilities and services” are a prerequisite for new urban development. Urban services as defined by the BVCP specifically include:

- Public water
- Public sewer
- Stormwater and flood mitigation
- Urban fire protection and emergency medical care

- Urban police protection
- Multimodal transportation
- Developed urban parks

More details on the goals, outcomes, and scope of work for the USS can be found in the [Information Packet provided to City Council on October 19, 2023](#). More details on Area III-Planning Reserve existing conditions can be found in the [Information Packet provided to City Council on April 18, 2024](#).

Public & Board Process to Date

As a technical study rather than a policy-setting process, the engagement approach is at the Inform level. To date, staff have sent communications to City Council on three occasions. An IP memo with details related to the scope of work and schedule was sent on October 19, 2023, and a Heads-Up message was sent by the City Manager's Office on February 9, 2024, confirming that the project was proceeding on schedule. A second IP memo was delivered on April 18, 2024, discussing the initial existing conditions assessment performed as part of the USS. Each of these communications has been shared with Planning Board to keep them informed. Staff have an information session scheduled with Planning Board to discuss the preliminary scenario evaluations on July 16, 2024. Staff are regularly updating the [project website](#) with relevant information as the project progresses.

ANALYSIS

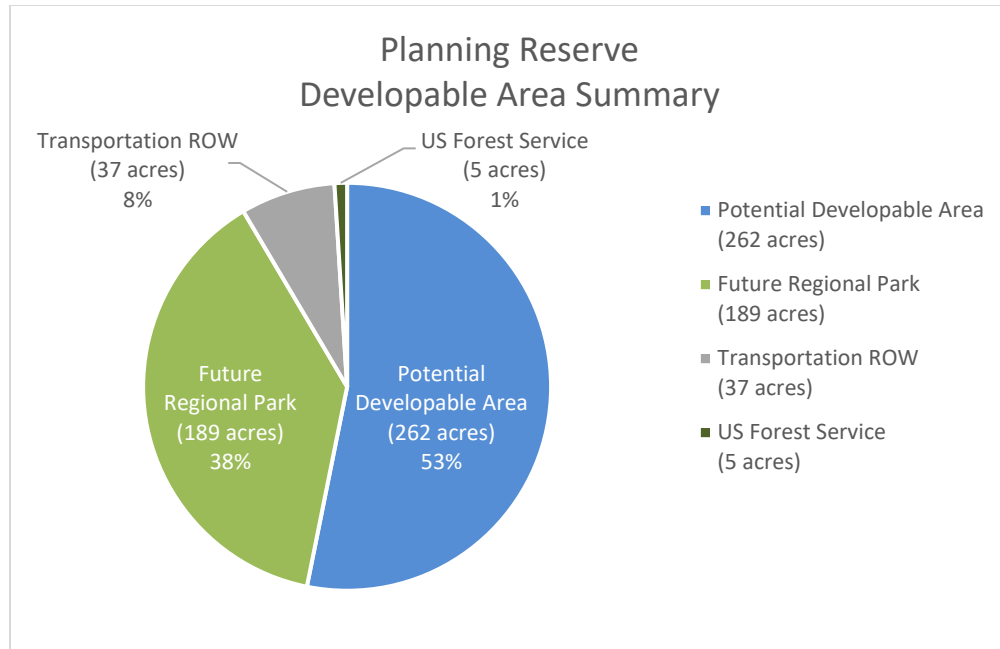
City Council's feedback on the following will help inform the more detailed analysis that will be included in the final USS report, which staff will present to Council on October 17, 2024, for review and acceptance.

1) Scenarios

AECOM and the core project team hosted a workshop with staff from Planning & Development Services, Utilities, Transportation & Mobility, Finance, Housing & Human Services, Parks & Recreation, and the City Attorney's Office to develop assumptions for each service demand scenario. The purpose of the workshop was to understand the relative scale, proportion, and dimensions of conceptual outcomes to inform the assumptions for a range of service demand scenarios. The USS uses generalized data and broad assumptions cross-checked against the Boulder context to lead to an order-of-magnitude understanding of the potential cost and infrastructure effects to deliver urban services to the Planning Reserve. More in-depth analysis of market dynamics, proposed land uses, and detailed site planning would occur at future steps of the Service Area expansion process. Below is a summary of the basic framework that was created to define assumptions for a mix of uses, housing densities, mobility network, and developable area across the Planning Reserve.

- **Scenario Policy and Service Demand Assumptions**

- The Planning Reserve would incorporate a mix of non-residential and residential uses
- Land purchased with Parks & Recreation funding will be used for a regional park
- No large lot rural residential use is anticipated
- A mix of residential housing types is assumed ranging from the Holiday neighborhood (8-12 units per acre) to Red Oak Park (20-30 units per acre) to Boulder Junction (30-50 units per acre)
- Estimated population and job generation are based on current P&DS land use standards
- Streets, multi-use paths, and bicycle/pedestrian facilities are based on Boulder Design & Construction Standards
- Water and wastewater demand are based on Utilities' data
- Tax and revenue generation are based on Finance data
- Neighborhood Park demands are based on Parks & Recreation Level of Service data and National Recreation and Parks Association benchmarks
- Emergency services requirements are based on data from Police and Fire departments
- **Scenario Use Categories**
 - Non-residential
 - Mixed use commercial
 - Business (office, retail, etc.)
 - Light industrial and manufacturing
 - Public/community services
 - Residential
 - Mixed use residential
 - Range of housing types and densities
 - Parks & Recreation
 - Regional Park
 - Additional neighborhood parks
 - Transportation Right-of-Way (ROW)
 - Primary Streets (including bike/ped facilities)
 - Multi-Use Paths
- **Potential Developable Area**
 - Potential developable area includes all properties except US Forest Service ranger station (approximately 5 acres), land purchased with moneys from the permanent Parks and Recreation fund (approximately 189 acres), and initial assumed needs for transportation right-of-way such as streets and multi-use paths (approximately 37 acres).
 - The remaining developable area (approximately 262 acres) would be available to accommodate residential uses, assumed to be at a range of housing types/densities, and non-residential uses such as business, light industrial, etc. This area would also include any additional park land needed to serve the community.



Initial Service Demand Scenario Evaluations

AECOM leveraged urban planning tools and a two-hour, in-person workshop with staff from several City departments to frame the physical capacity for development within the planning reserve across a range of Service Demand Scenarios (A, B, and C), considering factors related to slope, topography, road capacity, and other potential constraints on development to help define developable acreage. Three Service Demand Scenarios were developed to illustrate the feasibility and impacts of providing municipal services to the Planning Reserve.

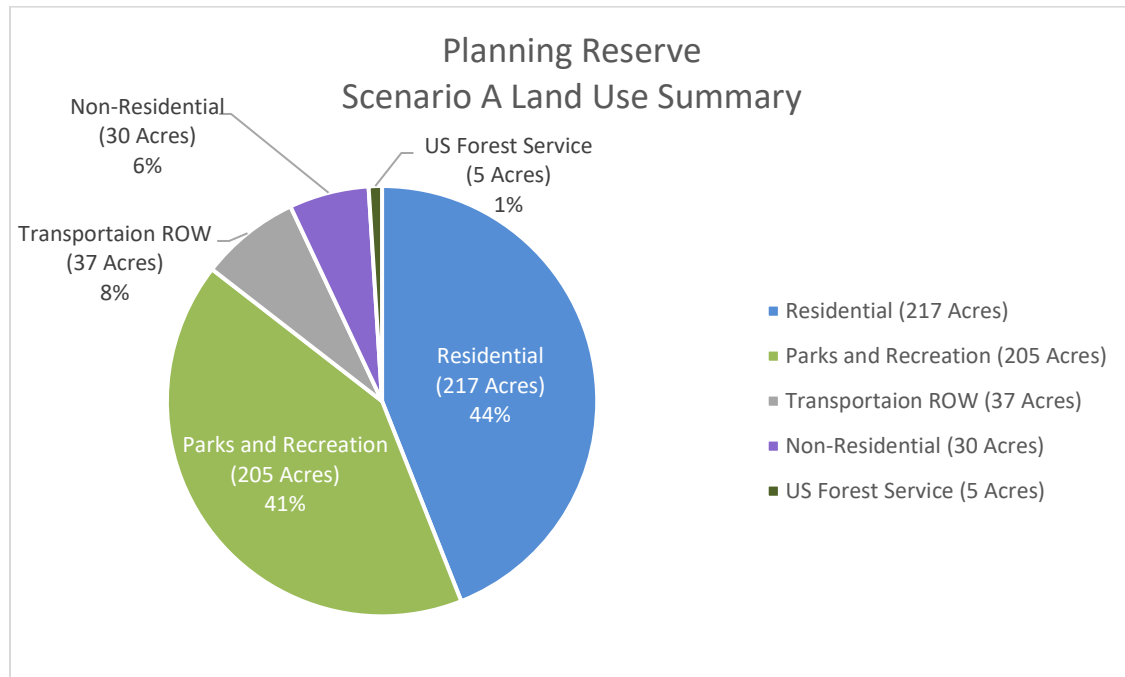
The purpose of scenario development is to understand the big picture infrastructure and urban service needs for a wide variety of future potential outcomes, so the city can make informed future decisions. The scenarios are points on a spectrum of potential development outcomes, and are not intended to represent choices, or the only available options. They are intended to capture moderate bookends of potential demand to model urban service needs.

The three scenarios identify different land uses within the Planning Reserve, and each scenario estimates non-residential gross floor area, jobs, residential units, and population. Assumptions were also included regarding the network of local and collector streets and multi-use paths to connect areas within the Planning Reserve and externally to existing areas of Boulder west and south of US 36.

Scenario A

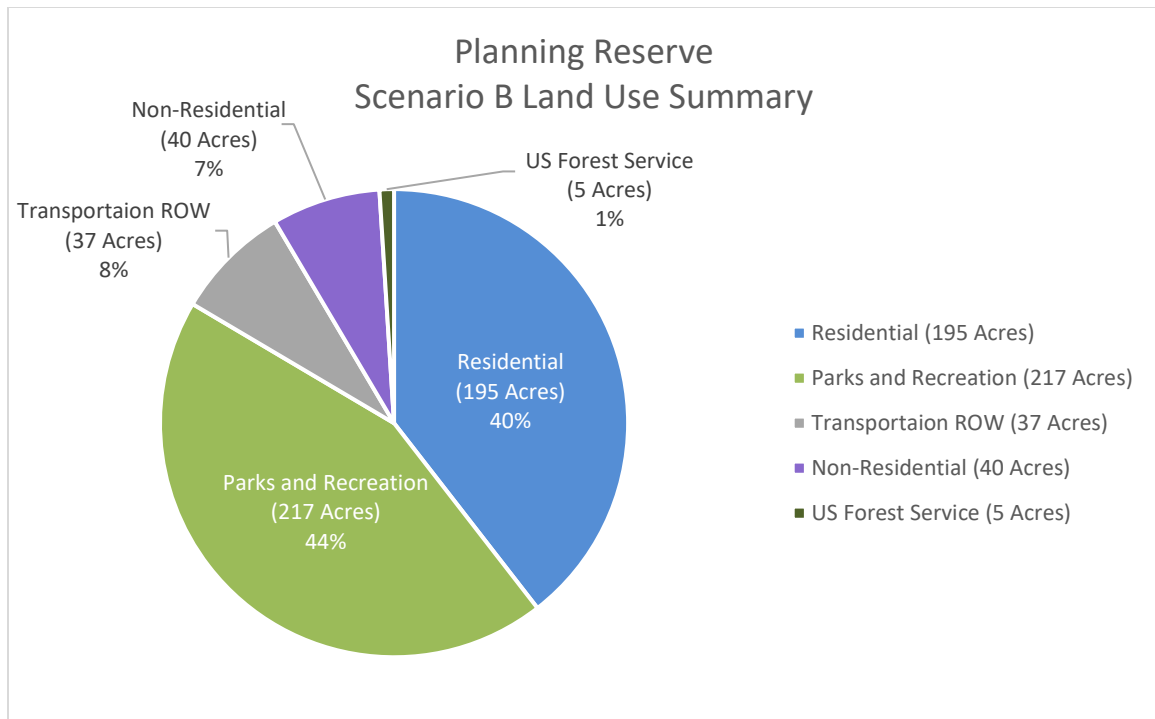
Scenario A assumes approximately 4,300 dwelling units, 725,000 Gross Square Feet (GSF) of non-residential development (such as commercial, retail and community

services) and over 200 acres of land to accommodate a regional park and local-serving neighborhood parks. This scenario allows for mixed-use nodes surrounded by a mix of residential densities ranging from 12 dwelling units per acre to approximately 50 dwelling units per acre. More than half of the residential portion is comprised of lower density attached residential (approximately 12 dwelling units per acre).



Scenario B

Scenario B assumes approximately 5,300 dwelling units, 972,000 GSF of non-residential development (such as commercial, retail and community services) and over 215 acres of land to accommodate a regional park and local serving neighborhood parks. Scenario B allows for mixed-use nodes, light industrial and/or manufacturing, and community services surrounded by a mix of residential densities and housing types. More than half of the residential portion is comprised of medium density attached residential (approximately 30 units per acre).



Scenario C

Scenario C includes approximately 6,700 dwelling units, 1,004,000 GSF of non-residential development (such as commercial, retail and community services) and over 215 acres of land to accommodate a regional park and local serving neighborhood parks. Scenario C allows for mixed-use nodes, and community services surrounded by a mix of residential densities and housing types. Medium and higher density residential housing types (30 and 50 units per acre, respectively) combine to account for more than half of the residential portion in this scenario.

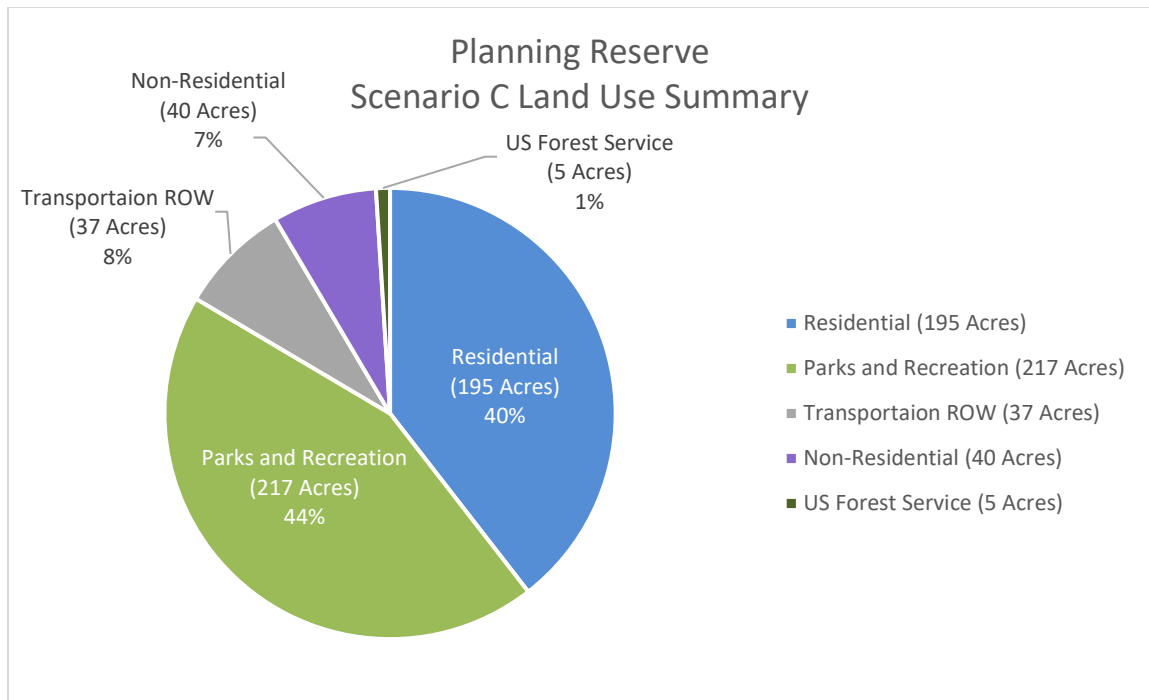


Table 1 below is a summary comparison of the conceptual development assumptions for Scenarios A, B, and C. The team attempted to identify a range of outcomes on a spectrum of potential development futures that would help identify critical infrastructure upgrades and test the feasibility of Service Area expansion under different conditions.

TABLE 1 – Scenario Summary Comparison

ESTIMATED OUTCOMES	A	B	C
NON-RESIDENTIAL GROSS FLOOR AREA (SQUARE FEET)	725,000	972,000	1,004,000
EMPLOYMENT (JOBS)	1,900	2,700	3,100
RESIDENTIAL UNITS	4,300	5,300	6,700
POPULATION	9,350	11,600	14,500
PARK - REGIONAL (ACRES)	189	189	189
PARK - NEIGHBORHOOD (ACRES)	15.6	27.9	27.9

2) Urban Services and Infrastructure

- **Public water**
 - Water demands will be modeled at a later phase in the project to determine if the existing water supply is sufficient to meet the needs of the existing water service area and the Planning Reserve.

- Water demands will be modeled with Boulder's water modeling program in a future phase of this Project to identify if the system has capacity (including treatment, storage, and conveyance) to serve the Planning Reserve. Preliminary evaluations indicate there may be off-site upgrades to upstream infrastructure necessary to deliver water to the Planning Reserve.
- **Public sewer**
 - Wastewater flows for the Planning Reserve will be modeled in Boulder's wastewater hydraulic model to discern if there is sufficient capacity in the existing wastewater collection system to serve the Planning Reserve.
 - The projected wastewater flows are being developed and will be used to identify if the Boulder Water Resource Recovery Facility capacity will need to be increased.
- **Stormwater / Regional Detention Approach**
 - Due to the capacity issues related to the existing stormwater infrastructure, the Planning Reserve may need a stand-alone separate stormwater system that would ultimately discharge into the natural drainageway that borders the north side of the area.
 - City of Boulder will need to perform a Watershed Study and Flood Plan to include the Planning Reserve area to understand the flooding potential that developing this area would have on downstream properties and guide decisions on how to manage the stormwater for the area.
 - To minimize flooding downstream, the City of Boulder may need to consider providing regional detention and a water quality pond to manage stormwater runoff. Providing an on-site regional detention facility would shift how the City has traditionally managed stormwater, but this could be an opportunity to update the City's approach to stormwater management for new developments.
- **Multimodal transportation**
 - Preliminary transportation analysis suggests CDOT may require some auto capacity improvements along US 36 to accommodate the additional trips generated by development in the Planning Reserve (i.e., widening). The City of Boulder will need to coordinate with CDOT to identify and implement the most appropriate transportation improvements to address additional vehicle, bicycle, and pedestrian movements from the Planning Reserve.
- **Urban fire protection and emergency medical care**
 - Preliminary analysis with Fire department staff indicate that the primary effect of future development in the Planning Reserve may be a need for additional ambulance and medical response capabilities. Existing Fire staff capacity and equipment may be sufficient. Additionally, wildfire hardening of architectural materials and development patterns may also be necessary.

- **Urban police protection**
 - Preliminary findings and discussion with Police staff indicate that additional officers and equipment may be necessary to serve the Planning Reserve. A shift in population distribution across the city caused by future development of the Planning Reserve may require redrawing of police district boundaries to address a new population center on the north side.
- **Future urban parks**
 - Urban Park Levels of Service: 189 acres were purchased with funds from the permanent Parks and Recreation Fund and for the purpose of meeting future community parks and recreation needs. Per section 154 of the Charter, purchase of the property for parks and recreation purposes and the use of funds from the permanent Parks and Recreation defines these 189 acres as “park land.”
 - Per Section 164 of the Charter, disposal of park land requires an affirmative vote of at least 4 members of the Parks and Recreation Advisory Board, a non-binding recommendation from the Planning Board, and approval by City Council.
 - Based on population projections and current park land inventory, by 2040 the city will need to develop all undeveloped park land at Valmont City Park, Foothills Community Park, and the Area III-Planning Reserve to maintain current Levels of Service and to keep pace with local and national benchmark communities.
- **Fiscal Considerations**
 - Cost estimation for infrastructure build-out has not been developed at this point in the project, nor have detailed forecasts for additional tax, fee and service revenues related to the project. As work continues a key challenge will be one of timing.
 - Development of the area will require significant capital expenditures several years before the area reaches stabilization. It is unlikely that current fund balances in the city’s utility, transportation, parks, and general funds will be sufficient to fund the required capital expenditures without utilizing debt financing. Any debt financing decision will have to be weighed against other citywide priorities and will depend upon budget decisions made by council in the years preceding annexation decisions. To finance the expansion, the city may have to consider alternative strategies such as Public-Private Partnerships.

NEXT STEPS

The project team is scheduled to provide a similar update to Planning Board on July 16, 2024, and will continue to work with AECOM to analyze the service demand scenarios to develop a more detailed understanding of the required infrastructure improvements and

associated fiscal impacts (construction costs, potential additional tax revenue, etc.). Staff is planning to review the final draft urban services study with Planning Board on October 15, 2024, and bring it forward to City Council on October 17, 2024, for acceptance.

If City Council accepts the study, public hearings could be scheduled with Planning Board and City Council in late 2024 or early 2025 to discuss whether staff should incorporate a process to assess unmet community needs as part of the next Comprehensive Plan update.