ADVANCE URBAN RESERVE AREA

Total Acres	275	Parcel Acres	268
Gross Vacant Buildable Acres	198	Net Vacant Buildable Acres	151

General Description (see attached map)

The Advance Urban Reserve Area is an irregular shaped area on the east side of Wilsonville that lies east of SW Stafford Road on either side of SW Advance Road and totals 275 acres. The new Meridian Creek Middle School is located directly west of the reserve area. The UGB forms the western boundary with rural reserve land to the south and east with the exception of a small pocket of land along SW 53rd Ave that is undesignated. The land north of SW Kahle Road is also undesignated. The land is generally flat with some very minor areas of slopes greater than 25% along two tributaries to Newland Creek which flow southeast through the northeast portion of the reserve area. Access to the area is provided by SW Stafford Road, SW Kahle Road, SW Advance Road and SW 60th Ave.

Parcelization, Building Values, Development Pattern (see attached aerial photo)

This reserve area contains 32 parcels that range from 5,350 square feet to 80 acres in size. Nine of the parcels are one acre or less, 24 are less than five acres, and four parcels are greater than 25 acres. The northernmost parcel is divided by the eastern reserve boundary along the top of the ridge above Newland Creek. The area contains rural residences on relatively small lots, small scale agricultural activity south of SW Advance Road with a couple of larger pockets of agricultural activity north of SW Advance Road. The Frogpond Grange is located along SW Stafford Road. Nineteen of the 32 parcels have improvements, with a median value of $151,190, not including any publicly owned buildings. Three separate power lines run diagonally in a southeasterly direction through the middle of the northern portion of the reserve area.

GOAL 14 LOCATIONAL FACTORS

Efficient accommodation of identified land needs

This reserve area is generally flat and includes some larger parcels north of SW Advance Road that could be appropriate for employment uses based on topography; given the power lines that run through this portion of the reserve area, employment may be a viable use. However this reserve area is not near the city's main employment center and there is a large undeveloped employment area in the northwest portion of the city with better access to I-5. In addition, the West Linn-Wilsonville School District has built a middle school adjacent to the reserve area with plans to build an elementary school on the campus in the future, which would be a central element of a residential community. Thus, this area is able to accommodate a residential land need.

Orderly and economic provision of public facilities and services

Sanitary Sewer Services

Capacity of existing facilities to serve areas already inside the UGB

The wastewater treatment plant was upgraded in 2014 which increased capacity from 2.5 MGD to 4.0 MGD resulting in excess capacity. The City has projects planned for the Memorial Park lift station over the next three years and a 20-year program in place to replace aging concrete pipe. There is capacity to serve areas already in the UGB.

Capacity of existing facilities to serve areas proposed for addition to the UGB

The wastewater treatment plant can serve a population of 35,000 people. The plant currently serves 24,000 people. The development of the Frog Pond area will use some of the additional capacity, but will not likely trigger any treatment plant upgrades. The City is planning to expand the treatment plant in 2030, however future industrial development in the Basalt and Coffee Creek areas could require capacity upgrades sooner depending on the timing of the industrial development. It is unknown at this time if additional pump station capacity will be available for development within the reserve area.

Impacts to existing facilities that serve nearby areas already inside the UGB

Based on conceptual level sewer sizing analysis, approximately 2.0 cfs will be added to the existing system. Conceptual sewer layouts indicate that additional flows from the Advance reserve area will connect to the Boeckman interceptor and will pass through the Memorial Park lift station before reaching the wastewater treatment plant. Current plans for improvements for the lift station are intended to support current growth within the existing UGB. These improvements could assist in provided capacity for the reserve area development; however, excess capacity is unknown at this time. Therefore, the extent of required improvements to the existing trunk line and pump station and their associated costs are unknown.

Sanitary Sewer Piping Costs

Sanitary sewer piping costs	Cost (in millions)
Less than 12” pipe (gravity)	$2.24
Force main	$1.27
Pump station	$0.50
Total	**$4.01**

Water Distribution Services

Capacity of existing facilities to serve areas already inside the UGB

Wilsonville owns and maintains the Willamette River Water Treatment Plant, which is capable of processing 15 MGD. A planned improvement will bring the treatment plant capacity to 20 MGD in

order to serve the existing UGB through the year 2036. Current storage capacity is at 11 MG and the City has funded a project to provide additional storage to serve proposed development within the existing UGB. At present, existing pump stations and pipe networks are adequate to serve the area within the existing UGB.

Capacity of existing facilities to serve areas proposed for addition to the UGB

The City has ample water rights for the long term, so water supply is not an issue. The expected additional expansion of the treatment plant in 2035 should provide capacity for the reserve area. Existing storage tanks do not have capacity to serve development outside of the existing UGB.

Impacts to existing facilities that serve nearby areas already inside the UGB

It is anticipated that a new water storage tank will be constructed within the next 5 to 8 years in order to provide adequate storage for the Frog Pond area and the Advance reserve area. In addition, the planned water treatment plant improvements will provide additional capacity for the Advance reserve area

Water Costs

Water piping/storage/pumping costs	Cost (in millions)
12" and smaller	$2.26
18" and larger	$1.06
Storage/pumping	$1.96
Total	**$5.28**

Storm Sewer Services

Capacity of existing facilities to serve areas already inside the UGB

There is no indication of capacity issues with existing stormwater facilities that serve the land inside the UGB.

Capacity of existing facilities to serve areas proposed for addition to the UGB

Stormwater will be conveyed, treated, and disposed of within the reserve area therefore, it is not anticipated that existing facilities would be utilized.

Impacts to existing facilities that serve nearby areas already inside the UGB

Stormwater conveyance, treatment, and discharge are anticipated to occur within the reserve area; therefore no impacts to existing facilities are anticipated.

Storm sewer conveyance and water quality/detention costs for roadways

Conveyance & water quality/detention costs	Cost (in millions)
Conveyance	$2.98
Water quality/detention	$2.82
Total	**$5.8**

Transportation Services

Capacity of existing facilities to serve areas already inside the UGB

Roadway: All roadways in Wilsonville have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak. I-5 south of SW Wilsonville Road to across the Willamette River is classified as a high injury corridor for automobiles and SW Parkway Ave from Printer Parkway to SW Town Center Loop E is classified as a high injury corridor for pedestrians.

Transit: South Metro Area Regional Transit (SMART) provides full transit services to the City of Wilsonville through seven bus lines, Dial-a-Ride and medical transport services. The vast majority of the city's developed areas are within ¼-mile of a transit stop. TriMet's Westside Express Service (WES) Commuter Rail originates its route in Wilsonville, servicing four other stations on its way to Beaverton.

Bike: Wilsonville has a well defined bike network of dedicated bike lanes (19 miles) and established bikeways (4.5 miles) that connects neighborhoods, schools, parks, community centers, business districts and natural resource areas.

Pedestrian: Wilsonville has a fairly well defined pedestrian network in its residential neighborhoods with less pedestrian amenities in the industrial and employment areas. Interstate 5 provides a barrier for east-west pedestrian connections. SW Wilsonville Road and the nearby residential neighborhoods provide full sidewalk amenities while SW Boeckman Road does not.

Capacity of existing facilities to serve areas proposed for addition to the UGB

Roadway: All roadways that serve the urban reserve area have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak.

Transit: SMART's Route 4 – Wilsonville Road serves the Meridian Creek Middle School that is adjacent to the urban reserve area.

Bike: SW Wilsonville Road and SW Boeckman Road have dedicated bike lanes, although SW Boeckman Road contains some gaps in bike lanes. SW Advance Road has bike facilities to serve the Meridian Creek Middle School which is adjacent to the reserve area. Future bike facilities will be developed in the Frog Pond area as development occurs, filling some of the gaps on SW Boeckman Road.

Pedestrian: SW Wilsonville Road and the nearby residential neighborhoods provide full sidewalk amenities while SW Boeckman Road does not. Sidewalks have been built on SW Advance Road to serve the Meridian Creek Middle School which is adjacent to the urban reserve area. Crosswalks are available at SW Advance Road and SW Wilsonville Road intersection.

Impacts to existing facilities that serve nearby areas already inside the UGB

Roadway: SW Stafford Road/SW Wilsonville Road and SW Boeckman Road would see additional traffic. Much of the traffic may flow towards the two interchanges on I-5 with additional traffic also accessing the employment areas in Wilsonville.

Transit: Existing SMART route 4 is expected to see additional ridership, see transit analysis below.

Bike: Bike facilities on SW Wilsonville Road would see additional use as they provide access to the high school and the commercial area. Once bike facility improvements on SW Boeckman Road are completed additional use would also be expected.

Pedestrian: Pedestrian facilities on SW Wilsonville Road would see additional use as they provide access to the high school and the commercial area. Once pedestrian facility improvements on SW Boeckman Road are completed additional use would also be expected.

Need for new transportation facilities and costs (see attached transportation map)

A half-street improvement for SW Stafford Road to urban arterial standards is needed. SW 60th Avenue and two sections of SW Advance Road will need to be improved to urban collector standards. A new collector is needed between SW Advance Road through the northern portion of the reserve area to SW Stafford Road.

Facility Class		
Arterials	Type	Cost (in millions)
	Existing/Improved ½	$10.95
Collectors	Type	Cost (in millions)
	Existing/Improved	$10.02
	New	$14.54
Total		**$35.51**

Provision of public transit service

South Metro Area Regional Transit (SMART) evaluated the reserve area for providing transit service. SMART could provide services to the reserve area although there is no guarantee of service. Actual service depends on the level of development in the expansion area and in the corridors leading to the reserve area. Service could be provided at 60 minute headways weekday with one additional bus at a capital cost of $650,000 (recurs every 14-15 years). Bus capital costs reflect

electric vehicle costs as SMART plans to provide services with a zero emission fleet. Annual service cost is $250,000 and grows 3% per year.

Prior to land being included in the UGB a more detailed concept plan, consistent with the requirements of Metro's Urban Growth Management Functional Plan Title 11, will be required. This concept plan process will develop more refined public facility and service needs and cost estimates.

Comparative environmental, energy, economic and social consequences (ESEE analysis)

Environmental

Two tributaries of Newland Creek flow eastward through the northern portion of the reserve area for a combined 4,660 feet, almost all of which is within a forested ravine with slopes greater than 25%. The remainder of the smaller tributary that is not forested is within the power lines. There are areas of riparian and upland habitat associated with both tributaries. Given the increased protection levels for streams and habitat areas within the UGB and the two streams being in ravines, urbanization could occur without significant impacts to the two stream corridors. In addition the power line easement also provides a level of protection due to the inability to urbanize at a high level within the easement.

A small unnamed stream flows south for approximately 1,340 feet through the back portion of some rural residential parcels in the southeast corner of the reserve area. The stream is generally wooded and there appears to be a couple of ponds located along the stream corridor that are not identified as wetlands. There is some riparian habitat identified along the stream corridor as well. The stream location somewhat isolates the southeast corner of the reserve area, which could lead to impacts related to street connectivity needs, thus some impacts to this stream and habitat area may occur through urbanization of the area.

An unnamed stream inside the UGB flows along the southwestern edge of the reserve area and the related riparian and upland habitat extends into the reserve area. This habitat is mainly within a ravine with slopes greater than 25%, which should limit any impacts to the habitat area. Thus urbanization can occur with minimal impacts to the habitat in this portion of the reserve area. Overall urbanization of the area could occur with minimal to moderate environmental consequences depending on street connectivity needs in the southeast location.

Energy, Economic & Social

It is expected that urbanization of the reserve area will result in new housing replacing the existing rural residences in most instances. There are sufficient larger tracts of land within the reserve area that could be developed to urban densities which may generate social consequences for the existing residents of the area in terms of loss of sense of place and rural lifestyle, especially those residents residing on the smaller lots along SW 60th Ave and SW Advance Road. Development of the West Linn-Wilsonville School District property as a primary and middle school campus will reduce the rural lifestyle feel and sense of place but also provide new social, educational and recreational opportunities for future and existing residents as well. The stream corridors and power lines, along

with the adjacent rural reserve land isolate corners of the reserve area where the impact in terms of loss of sense of place and rural lifestyle may be less. The additional traffic generated through urbanization of the area will ultimately funnel on to SW Stafford Road which could lead to increased congestion at the Wilsonville I-5 interchanges, thereby producing negative energy impacts. Wilsonville provides a significant level of employment opportunities that could be available to future residents, thereby reducing VMT. The two schools on the West Linn-Wilsonville School District property adjacent to the reserve area will provide the opportunity for future school age children in the area to walk to school. Preservation of the stream corridors and the power line easements provide the opportunity for development of trails that connect with existing trails within the city which could reduce some local automobile trips, thereby reducing VMT. The agricultural activity within the reserve area is not significant and is concentrated in the northern portion of the reserve; loss of the economic impact from these agricultural uses would be limited. The potential economic impact of future development should outweigh this loss. Infrastructure to serve this urban reserve area will also serve future development of land already within the UGB as noted in the Frog Pond Area Plan. Sharing of the infrastructure cost with land already inside the UGB will reduce the negative economic consequences of providing urban services to the urban reserve area. Overall this reserve area has medium economic, social and energy consequences from urbanization.

Compatibility of proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB (see attached resource land map)

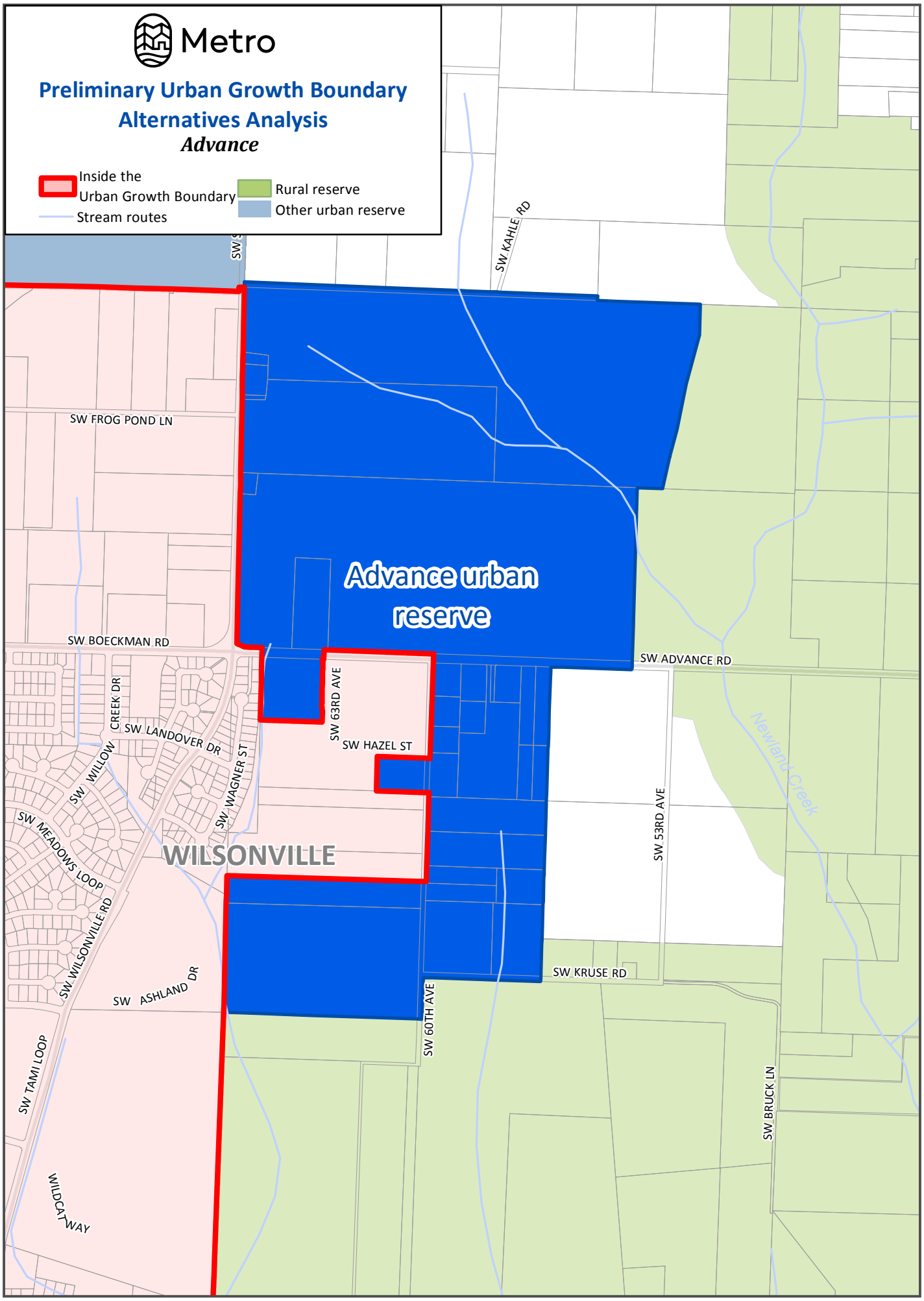
Exclusive Farm Use (EFU) zoned land borders the reserve area on the north, east and south sides. The adjacent land to the north includes rural residences and land in agricultural production including mostly field crops and some nursery crops and extends north of SW Homesteader Road. SW Kahle Road provides a buffer for a portion of the area, although the street itself would not make the two uses compatible and issues related to safety, liability and vandalism and complaints due to noise, odor, dust and the use of pesticides and fertilizer could still occur. In addition, the improvement of SW Kahle Road to urban standards includes its own set of compatibility issues related to street light illumination, weeds and pedestrian movements that can reduce compatibility between the two uses. Some of the impacts may be addressed through road design. The power lines and the stream corridors isolate the northern portion of the reserve area and also limit the amount of development that will occur near the agricultural activities, thereby reducing some potential conflicts. Urbanization would increase traffic on SW Stafford Road and SW Kahle Road which could impact the movement of both farm equipment and goods. Overall the proposed urban uses, even if somewhat limited are not compatible with the nearby agricultural activities occurring on the farm land to the north.

The Newland Creek riparian area provides a buffer for the agricultural lands that are east of the reserve area and north of SW Advance Road. South of SW Advance Road is a relatively small pocket of farm land located between the reserve area and Newland Creek. Urbanization of the reserve area would result in new development directly adjacent to this actively farmed land, which could result in issues related to safety, liability and vandalism and complaints due to noise, odor, dust and the use of pesticides and fertilizer. Urbanization would increase traffic on SW Advance Road and SW 60th Ave which could impact the movement of both farm equipment and goods especially since

goods would need to travel west through the new urban area to access the interstate system. The proposed urban uses are not compatible with the nearby agricultural activities occurring on the farm land to the east that is south of SW Advance Road but is compatible with the farm land to the north of SW Advance Road.

Most of the farm land south of the reserve area is forested with only a long thin section of land directly south of SW 60th Ave currently in agricultural production. SW 60th Ave and SW Kruse Road provide a buffer for this slim area, although the street itself would not make the two uses compatible and issues related to safety, liability and vandalism and complaints due to noise, odor, dust and the use of pesticides and fertilizer could still occur. The limited frontage between the two uses should help reduce potential conflicts. Urbanization would increase traffic on SW 60th Ave which could impact the movement of both farm equipment and goods, especially since goods would need to move north through the new urban area to access the interstate system. Urbanization of the area would impact this limited area of agricultural activities to some extent.

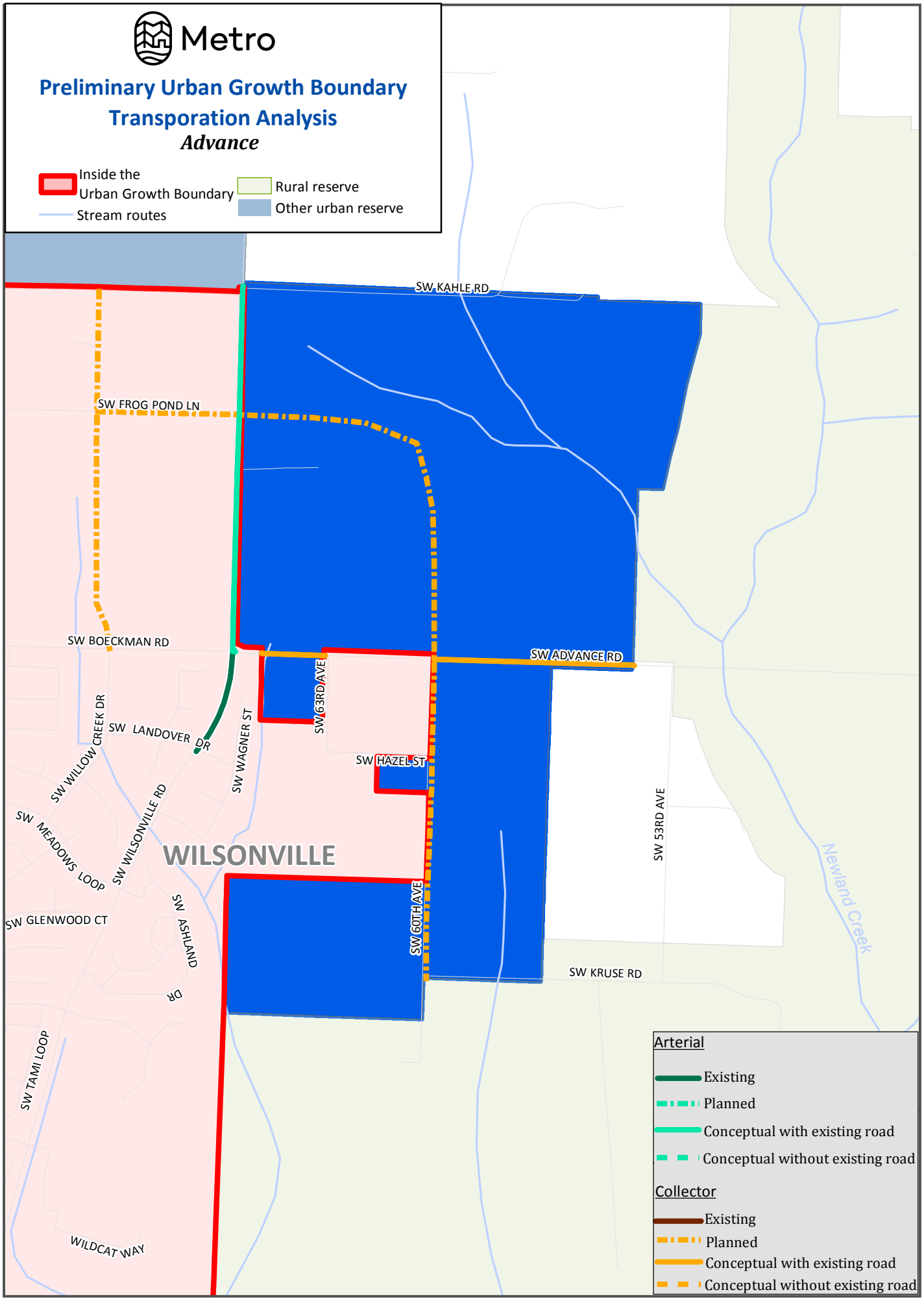
In summary, the proposed urban uses would not be compatible with nearby agricultural and forest activities occurring on farm and forest land outside the UGB to the north, southeast and to a lesser extent the south. Urbanization would be compatible with nearby agricultural and forest activities occurring on farm and forest land outside the UGB directly east of the northern section of the reserve area. Overall the proposed urban uses would be moderately compatible with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.



Metro

Preliminary Urban Growth Boundary Alternatives Analysis

Advance



Metro

Preliminary Urban Growth Boundary Alternatives Analysis Resource Land

Advance