BEAVER CREEK BLUFFS URBAN RESERVE AREA

Total Acres	228	Parcel Acres	225
Gross Vacant Buildable Acres	137	Net Vacant Buildable Acres	104

General Description (see attached map)

The Beaver Creek Bluffs Urban Reserve Area is composed of three sub-areas running east to west along the bluffs south of Oregon City. The eastern sub-area (22 acres) is adjacent to the UGB in the vicinity of Nobel Road, is bordered by the Mud and Caufield Creek drainages, and is composed of two parts separated by a short segment of the UGB. The central sub-area (43 acres) sits between Mud Creek and another tributary of Beaver Creek, bounded by S Leland Road to the east, bluffs to the south and west, and the UGB to the north. A one parcel sub-set of this central area is located at the end of S McCord Road. The western sub-area (163 acres) lies on both sides of S Center Point Road, sitting between the bluffs overlooking Beaver Creek and the current UGB to the north. Of the 228 acres within these three sub-areas, 22 are constrained by steep slopes over 25% along the bluffs. The remainder of the area is generally flat and is a logical extension of Oregon City.

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

The entire area contains 34 parcels and the majority of the land is in rural residential use, although a few of the larger parcels do appear to have minor agricultural activities. The eastern sub-area contains three parcels ranging from four to ten acres. The central sub-area contains 17 parcels, all less than five acres except for one at 8.9 acres. The western sub-area contains 14 parcels ranging from less than one to 40 acres. Overall, 23 of the 34 tax lots have improvements with a median value of $179,200, and six of those improvements are valued over $250,000. There are three power lines running through the western sub-area, crossing through six parcels. The Mahonia Land Trust Conservancy owns a large parcel immediately adjacent to the eastern edge of the western sub-area. There is no evidence of other public easements.

GOAL 14 LOCATIONAL FACTORS

Efficient accommodation of identified land needs

This area is composed of three subareas that are 22, 43 and 163 acres in size. Given the small size of the three individual areas, their location on a flat bench at the top edge of a steep sloped area, and being located adjacent to existing residential areas, this area is able to efficiently 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

Oregon City's Infrastructure Master Plan includes planned improvements and funding necessary to support the expected growth within the existing UGB.

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

Additional growth beyond the UGB is going to be a challenge for Oregon City due to the capacity of existing major facilities such as wastewater treatment and conveyance. Currently the City is not completing necessary infrastructure planning for growth in the urban reserve areas. Development in the reserve area will include infrastructure changes and costs for improving the existing infrastructure have not been included in the sewer cost estimate due to the unknown nature of actual improvements required.

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

There will be impacts to existing facilities and most of this infrastructure would be built by the development community.

Sanitary Sewer Piping Costs

Sanitary sewer piping costs	Cost (in millions)
Less than 12" pipe (gravity)	$2.47
Force main	$1.23
Pump station	$1.45
Total	**$5.15**

Water Distribution Services

Capacity of existing facilities to serve areas already inside the UGB

The City of Oregon City serves lands within their corporate boundary. Oregon City has recently annexed the Beavercreek UGB expansion area to the southwest. While the city is adequately served elsewhere, they do not have the water storage necessary to serve these recently annexed areas. Lands within the jurisdiction of Clackamas County in this vicinity are served by Clackamas River Water (CRW). CRW has adequate capacity to serve both the lands within the UGB and its rural customers. They operate a 30 MGD water treatment plant. Volumes available for their service area are 7.4 MGD on north and around 4 MGD on south for a total availability of approximately 11 MGD. The treatment plant is 50 years old and a pending facility master plan will determine what types of upgrades will be needed in the future. As noted above, the Beavercreek (previous UGB expansion) area needs a new reservoir to serve its pressure zone. Within five years, CRW expects to have a 2.2

or 2.5 million gallon elevated reservoir in the area. It is unclear however if this, or a future city owned facility will serve the Beavercreek area.

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

CRW is planning for the urban reserve areas and most the Beaver Creek Bluffs reserve area is in CRW. However they will not likely be the service provider in the future. Oregon City has the general policy that they will serve all of the lands within the UGB. As reserve areas are included in the UGB, the City intends to serve them. Oregon City would therefore annex the areas and subsequently take ownership of any water related infrastructure within the reserve area. There would be an exception for facilities that are needed to go beyond the area in question such as large scale transmission lines. Accordingly CRW, like many service providers must be are cautious about investing in improvements for the rural areas that may become urban. CRW has more than enough water to serve the urban reserve area and is expected to build a new storage reservoir within the next few years. Oregon City has plans to build reservoirs that could serve urban reserves, but no timeline information is available at this time.

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

As noted above, CRW has water networks in place that can serve the reserve area without significant upgrades; however it is not clear that CRW will be the future water provider. Oregon City will need to provide new facilities.

Water Costs

Water piping/storage/pumping costs	Cost (in millions)
12" and smaller	$2.18
Storage/pumping	$1.4
Total	**$3.58**

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. Stormwater will be complex but manageable given the infrastructure will be at the upstream edge of the surrounding basins.

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

Stormwater will be conveyed, treated, and disposed of 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	$5.4
Water quality/detention	$5.23
Total	**$10.63**

Transportation Services

Capacity of existing facilities to serve areas already inside the UGB

Roadway: Most of the roadways in Oregon City have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak. Southbound Highway 213, from Holcomb Blvd to Beavercreek Road, has a congested volume/capacity ratio (<1.0) as does most of I-205 in both directions through Oregon City and across the Abernathy Bridge. A short section of southbound Highway 213, between I-205 and Holcomb Blvd has a severely congested volume/capacity ratio (>1.0) as does short portions of I-205 through Oregon City. Highway 213 also has a small severely congested section in both directions between Meyers Road and Glen Oak Road.

Highway 213 south of Beavercreek Road, Molalla Ave from Division Street to Highway 213 and McLoughlin Boulevard through downtown Oregon City are classified as high injury corridors for automobiles. McLoughlin Boulevard through downtown Oregon City is classified as a high injury corridor for pedestrians.

Transit: Four TriMet bus lines serve Oregon City all of which focus on the downtown and central portion of the city along Molalla Ave. Service is provided to Clackamas Community College but large portions of the city are not served by transit.

Bike: Oregon City has 24 miles of dedicated bike lanes and three miles of established bikeways with most of them located in the "up-top" section of the city. The Park Place neighborhood is also fairly well served and Highway 213 has dedicated bike lanes. Most of the downtown streets are classified as bike with caution streets and the South End neighborhood has minimal bike facilities.

Pedestrian: Downtown Oregon City is well served by sidewalks as is Molalla Ave as it extends to the "up-top" portion of the city. There are a number of pockets of older subdivisions that do not have sidewalks with more recent developments well served by sidewalks.

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

Roadway: Leland Road and Central Point Road are the main access ways to the reserve areas and both roadways have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak. Other nearby roads including Meyers Road and South End Road also has an acceptable volume/capacity ratio for the pm peak. As noted above Highway 213 has a small severely congested section in both directions between Meyers Road and Glen Oak Road.

Transit: No bus line provides service near the reserve areas. The closest bus stop via Leland Road is 1.5 miles away.

Bike: The closest bike lane to any of the reserve areas is on Frontier Parkway which is about ¼ mile away via Leland Road. There are bike lanes on a portion of Leland Road, starting near S Kalal Court which connect to some of the other bike facilities "up-top". Central Point Road is classified as a bike with caution street.

Pedestrian: The newer subdivisions near the reserve areas have sidewalks and there are potential connection points to the different reserve areas. There are significant sidewalk gaps between these subdivisions and other parts of the city.

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

Roadway: Leland Road and Central Point Road are the main access ways to the reserve areas and both roadways have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak. Other nearby roads including Meyers Road and South End Road also have an acceptable volume/capacity ratio for the pm peak. These roads would not be impacted by urbanization of these small reserve areas.

Transit: No bus line provides service near the reserve areas. See transit analysis below.

Bike: The bike lanes on Frontier Parkway and Leland Road could see additional use however the portion of Leland Road already inside the UGB between the reserve areas and the existing bike lanes will need to be improved with bike facilities. This is also true for the short section of Frontier Parkway that does not have bike lanes.

Pedestrian: The sidewalks in the newer adjacent subdivisions could see additional use once the areas urbanize. However there are significant sidewalk gaps between these subdivisions and other parts of the city which would reduce any additional impact.

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

S Central Point Road and Parrish Road will need to be improved to urban collector standards. Parrish Road is considered a ½ street improvement as a portion of the roadway is already inside the UGB. A new collector is needed that extends south from Parrish Road and ultimately arcs west through the UGB to connect with South End Road.

Facility Class		
Collectors	Type	Cost (in millions)
	Existing/Improved	$4.99
	Existing/Improved ½	$5.56
	New	$16.72
Total		**$27.27**

Provision of public transit service

TriMet evaluated the reserve area for providing transit service. TriMet 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 45 minute headways for all day service, weekdays only, with one additional bus at a capital cost of $400,000 (recurs every 16 years). Annual service cost is $360,000 and grows 2% 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

Approximately 327 feet of Mud Creek flows through a ravine on the edge of the eastern sub-area and about 2,100 feet of an unnamed stream flows south through the western sub-area. A 900 foot segment of this stream, including an associated 1.5 acre National Wetland Inventory wetland is located on the flat portion of the area above the bluff. Riparian habitat is identified along both stream segments as well as upland habitat. Urbanization of this area may impact the stream, wetland and upland habitat areas on the flatter portion of the western sub-area, but the remainder of the stream flows through a wooded sloped area and would be minimally impacted. The eastern sub-area stream and habitat area would be less impacted by urbanization as it is located over 200 feet from the flat portion of the sub-area. Overall urbanization of the area could occur with minor to moderate impacts to the stream corridor in the western sub-area along the flat portions where development is appropriate, depending on street connectivity requirements. Overall this urban reserve has low environmental consequences.

Energy, Economic & Social

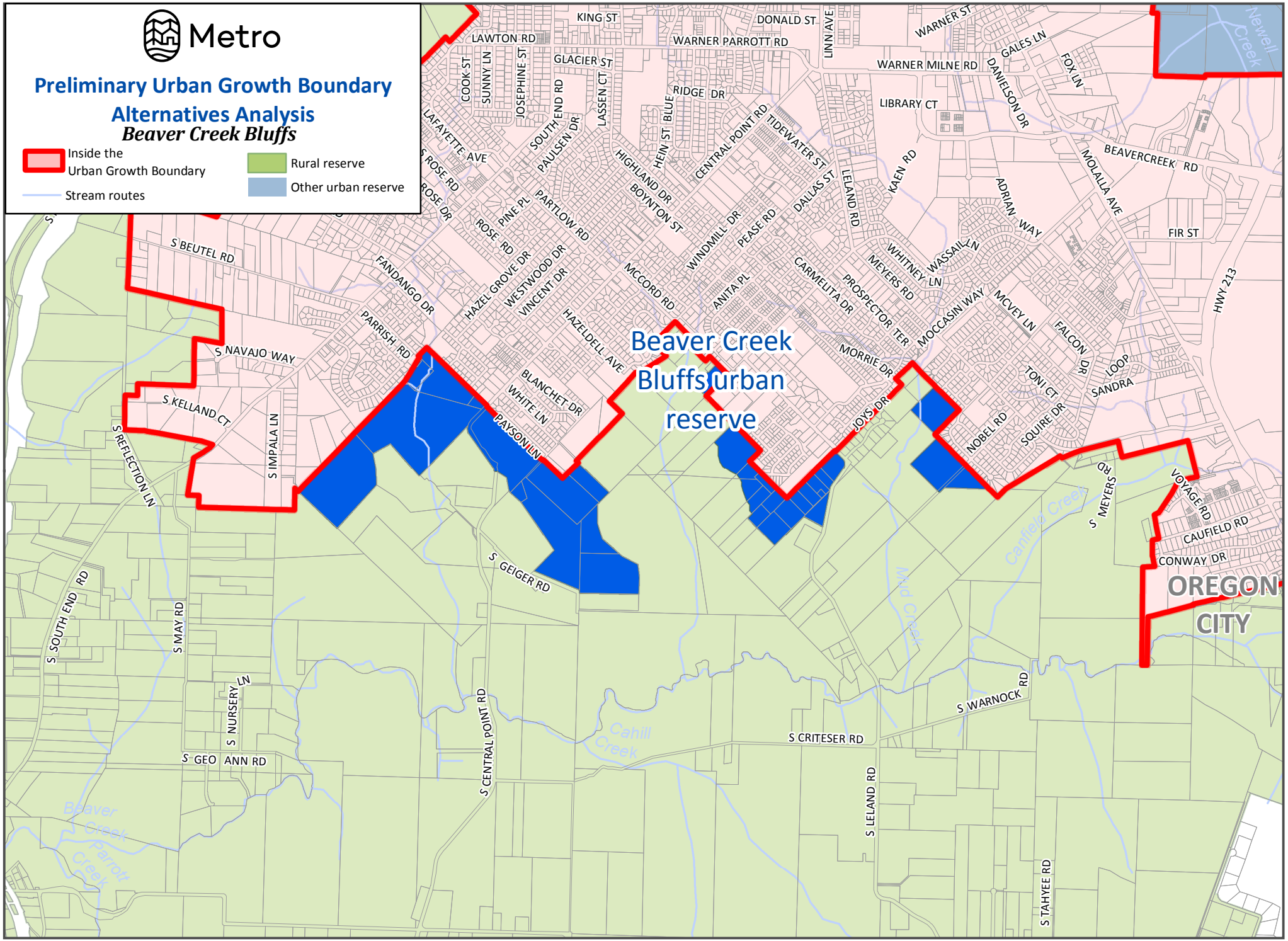
This urban reserve area is made up of three very small land areas, and over half of the reserve area is adjacent to urban subdivisions with the remaining area adjacent to undeveloped urban land zoned single family residential. The main use in the area is rural residential and 67% of the parcels have improvements. Existing urban streets provide access to these parcels. Urbanization of these reserve areas will not cause negative social impacts for the current residents as these small isolated areas are in effect more urban than rural due to their location to the adjacent urban development.

There are minimal agricultural activities occurring in this reserve which minimizes any potential negative economic impacts of a lost farming economy. The additional VMT generated through urbanization of this very small area will be minimal. Overall this urban reserve area has low 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)

The entire edge of the three urban reserve sub-areas borders land zoned for resource use. The vast majority of this resource land is zoned timber (TBR) except for a small portion of exclusive farm use (EFU) zoned land in the vicinity of S Central Point Road and S Geiger Road. There are significant slopes along almost the entire edge of the reserve sub-areas, most of which are forested except those areas that abut a power line easement. The small portion of EFU zoned land that is located between the western sub-area and Beaver Creek contains significant pockets of forest land, some rural residences and very limited agricultural activities consisting of pasture land. Beaver Creek provides an edge to the larger block of EFU land to the south that also includes nursery stock. The majority of the adjacent TBR zoned land drops steeply to the south from the reserve areas. Most of these parcels include rural residences and streams, including Mud and Canfield Creeks.

Due to the very limited nature of the nearby agricultural and forest activities, the number of rural residences spread throughout the resource lands and the significant change in elevation between the reserve sub-areas and the resource lands, the proposed urban uses has high compatibility with the nearby agricultural and forest activities occurring on farm and forest land.



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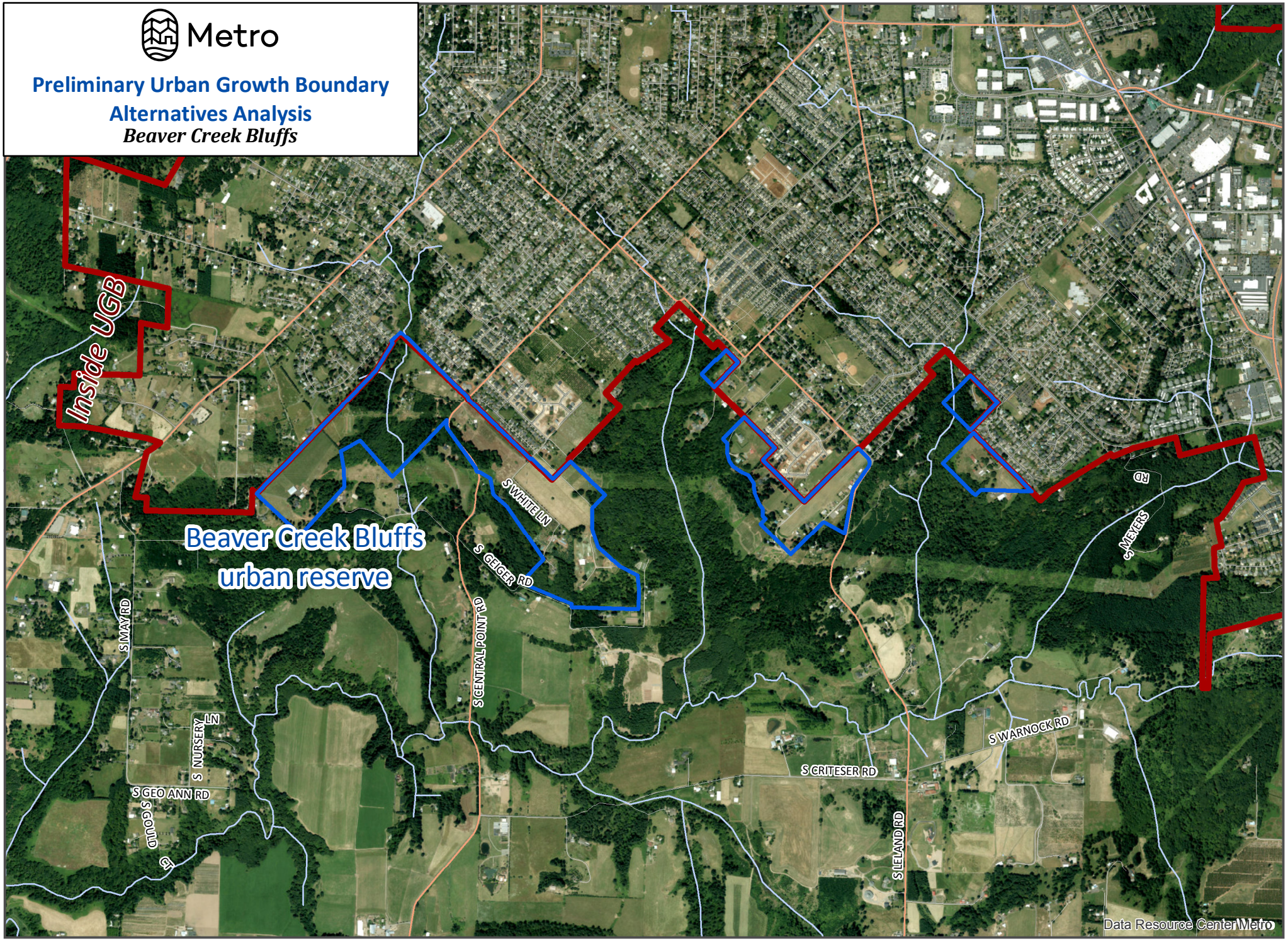
Preliminary Urban Growth Boundary Alternatives Analysis

Beaver Creek Bluffs



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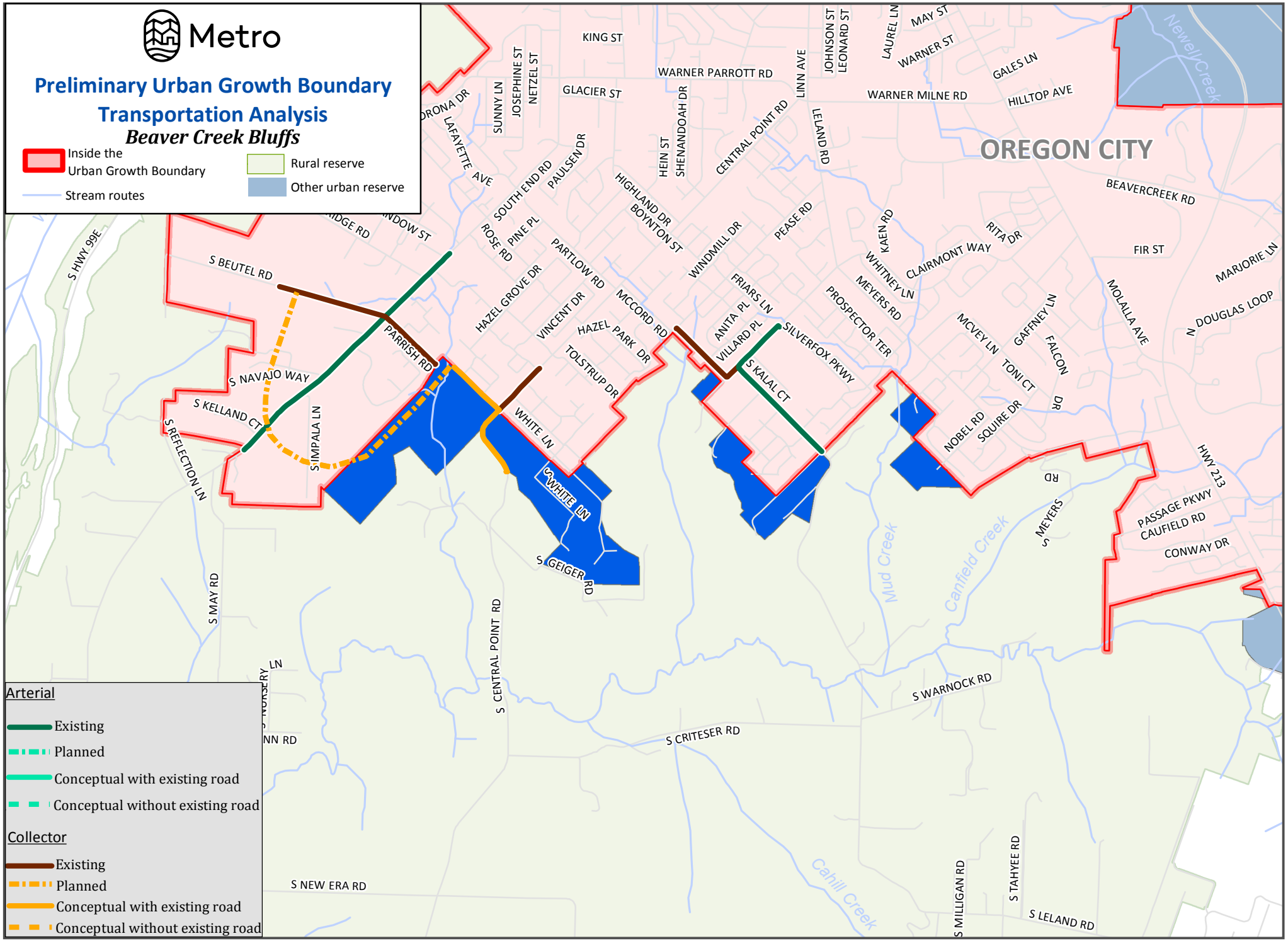

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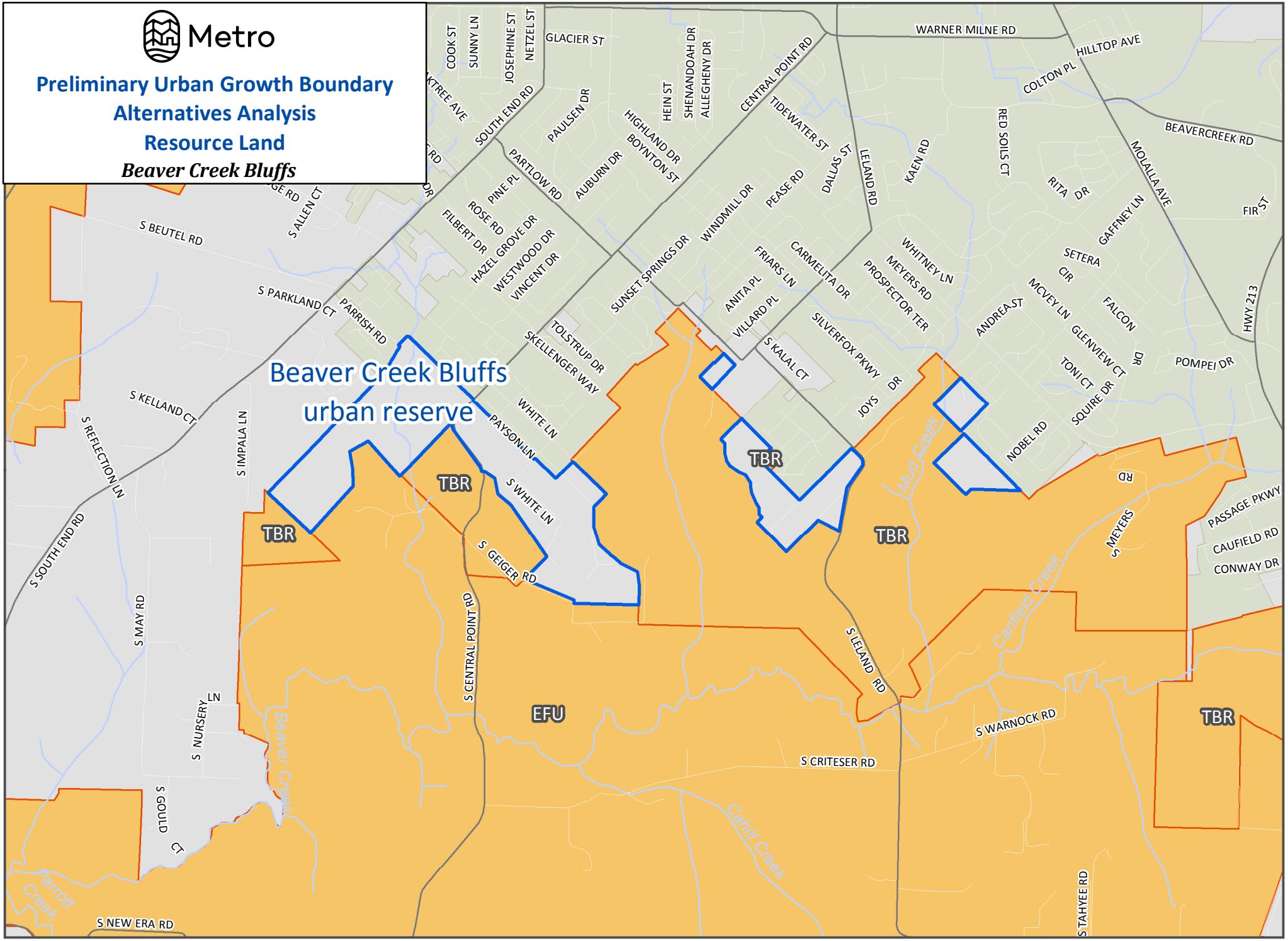
Preliminary Urban Growth Boundary Alternatives Analysis

Resource Land

Beaver Creek Bluffs



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