

HENRICI URBAN RESERVE AREA

Total Acres	421	Parcel Acres	395
Gross Vacant Buildable Acres	299	Net Vacant Buildable Acres	227

General Description (see attached map)

The Henrici Urban Reserve Area is a rectangular shaped area on the south side of Oregon City, north and south of S Henrici Road that totals 421 acres in size. The current UGB forms the northern boundary of the area. The area is primarily flat, with the exception of the very western edge of the area and the northeast portion that contains forested steep slopes above Thimble Creek. The area is served by S Henrici Road, S Beaver Creek Road and Highway 213. There is one parcel that is separate from the rest of the area located west of Highway 213 in the vicinity of Edgemont Drive

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

This relatively small-sized urban reserve area contains 357 parcels that range in size from less than 1,000 square feet to 17 acres in size. Seventy-five percent of the parcels are less than one acre in size, 14 are greater than five acres and three are greater than ten acres. Overall, 301 of the 357 parcels have improvements, with a median value of \$160,160, excluding any publicly owned buildings. The area is composed mainly of rural residential development, the majority of which are on parcels less than an acre in size with a few locations of very small scale agricultural activity. Four of the parcels are in public ownership including two water storage facilities, one owned by the City of Oregon City and the other owned by Clackamas River Water. The Oregon City School District owns an 11.85 acre site in the eastern portion of the area off of S Meadow Ave and the fourth public parcel is a water retention facility owned by the State of Oregon. There are four churches in the reserve area. The Beaver Creek Cooperative Telephone Company offices are located along S Henrici Road and the El Paso Natural Gas Co. owns a facility at the corner of Highway 213 and S Henrici Road.

GOAL 14 LOCATIONAL FACTORS

Efficient accommodation of identified land needs

The reserve area is flat with only two locations of slopes greater than 25% located at the edges of the area. While this provides the opportunity for employment possibilities from a topography perspective, the overwhelming number of small parcels and the existing residential development combined with the distance from I-205 reduce the attractiveness of the area for employment use. The existing rural residential development pattern does provide the opportunity for future residential development and the school district's property would provide a focal point for the

neighborhood once a school is built. Therefore 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

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 major 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 significant impacts to existing facilities and other necessary facilities will require major improvements. 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)	\$1.65
Total	\$1.65

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 all of the Henrici 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 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 can serve areas adjacent to them without significant upgrades; however it is not clear that CRW will be the future water provider. There are new storage reservoirs currently planned to serve lands within the existing UGB that are also needed for servicing the Henrici reserve area. These reservoirs will be constructed regardless of the status of reserve area. Oregon City will need to provide new facilities.

Water Costs

Water piping/storage/pumping costs	Cost (in millions)
18" and larger	\$3.96
Storage/pumping	\$2.84
Total	\$6.80

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 this infrastructure would 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	\$5.84
Water quality/detention	\$5.80
Total	\$11.64

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 Beaver Creek 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 Beaver Creek 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: Beaver Creek Road and Highway 213 are the main access ways to the reserve area and both roadways have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak near the reserve area. Southbound Highway 213, from Holcomb Blvd to Beaver Creek Road, has a congested volume/capacity ratio (<1.0). Highway 213 has a small section between Meyers Road and Glen Oak Road that has a severely congested volume/capacity ratio (>1.0) in both directions, which is less than a $\frac{1}{2}$ mile from the reserve area.

Transit: TriMet bus lines 32 and 99 provide service to Clackamas Community College which is approximately one mile away. No other bus line provides service near the reserve.

Bike: Beaver Creek Road and Highway 213 have dedicated bike lanes that extend to the reserve area and Glen Oak Road, just north of the reserve area, has a dedicated bike lane along most of its length between Beaver Creek Road and Highway 213. These bike lanes connect to numerous other bike facilities “up-top”.

Pedestrian: The newer subdivisions on the north edge of the reserve area have sidewalks although there are only three connection points to the reserve. Beaver Creek Road does not have sidewalks; however the portion of Highway 213 that is closest to the reserve area does have sidewalks. There still is a significant gap along Highway 213 between Conway Drive and Meyers Road, where the trails at Clackamas Community College connect to Highway 213.

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

Roadway: Beaver Creek Road and Highway 213 are the main access ways to the reserve area. Beaver Creek Road has an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak and would not be impacted, beyond the need to improve the road to urban standards. The small section of Highway 213 between Meyers Road and Glen Oak Road that has a severely congested volume/capacity ratio (>1.0) in both directions, would be impacted by urbanization of the reserve area. Southbound Highway 213, from Holcomb Blvd to Beaver Creek Road, has a congested volume/capacity ratio (<1.0) and would be impacted in the pm peak timeframe.

Transit: TriMet bus lines 32 and 99 would not be impacted by urbanization of the reserve area. See transit analysis below.

Bike: The bike lanes on Beaver Creek Road and Highway 213 could see additional use when bike lanes are constructed on the portions of these two roadways within the reserve area. In addition the bike lane on Glen Oak Road would also be expected to see additional use, especially as connections are made to the reserve area from the local streets on the north side. These bike lanes connect to numerous other bike facilities “up-top” and the trails at Clackamas Community College.

Pedestrian: The sidewalk network within the subdivisions on the north edge of the reserve area would be expected to see additional use when the three connection points are improved with sidewalks in the reserve area. Likewise the sidewalks on Highway 213 close to the reserve area would be expected to see more use; however the gap between Conway Drive and Meyers Road,

where the trails at Clackamas Community College connect to Highway 213 will reduce some of the expected impact.

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

Highway 213, S Beavercreek Road and S Henrici Road will need to be improved to urban arterial standards. S Meadow Avenue will need to be improved to urban collector standards and four new collectors will be needed to provide necessary street connectivity.

Facility Class		
Arterials	Type	Cost (in millions)
	Existing/Improved	\$81.05
Collectors	Type	Cost (in millions)
	Existing/Improved	\$2.70
	New	\$26.66
Total		\$110.41

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 30 minute headways for all day service, seven days a week, by extending line 79 with three additional buses at a capital cost of \$1,200,000 (recurs every 16 years). Annual service cost is \$1,825,000 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, is 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

A 1,100 foot section of Thimble Creek flows north through the northeast corner of the reserve area. This stream segment is located at the base of a forested slope, some 100 feet below the homes on S Danny Court, which is a built out rural subdivision on a cul-de-sac. Due to development constraints related to steep slopes and the developed nature of these narrow deep lots, this section of Thimble Creek will not be impacted by urbanization of the reserve area. Significant upland habitat has been identified on the forested hillsides that run down to Thimble Creek. The steep slopes in this area would limit the amount of the residential development that can occur, thus protecting the upland habitat.

A second stream flows west through some open land and the rural residential subdivision centered on S Wilshire Circle for approximately 2,600 feet, ultimately joining Beaver Creek outside of the

reserve area. The 750 foot portion of the stream that meanders through the middle of open land west of the rural subdivision is susceptible to impacts from future development, depending on design and roadway connections. The stream segment that is east of the rural subdivision is located on the Evangelical Lutheran Church property and is less susceptible to future impacts as the property is developed. The remaining portion of the stream flows through backyards of developed home sites and would most likely not be further impacted by urbanization of the reserve area. In addition, portions of this segment have already been channelized or possibly piped. Riparian habitat is only identified along the western open land section and required restoration of the riparian corridor would occur as the result of urbanization.

A third stream segment is located in the western portion of the reserve area, east and west of S Highway 213. The stream flows through a forested section of land on the north side of S Henrici Road for approximately 650 feet and appears to drain into a water retention facility that is located at the intersection of S Henrici Road and S Highway 213. The stream then resurfaces on the west side of S Highway 213 and flows 580 feet through open land to the end of the reserve boundary, ultimately joining Beaver Creek. Both of these stream segments have identified riparian and upland habitat and could be susceptible to limited impacts from urbanization depending on the development pattern and street connection needs. Increased natural resource protection requirements on land inside the UGB will help reduce the overall impacts. There are no inventoried wetlands within the urban reserve area. Overall urbanization of the area could occur with minimal impacts to the stream corridors and the riparian and upland habitat areas.

Energy, Economic & Social





It is expected that urbanization of the reserve area will result in new housing replacing the existing rural residences. As noted a significant portion of this reserve area is developed with single family homes on small rural lots, which is not much different than the pattern of development within the UGB. This existing level of development would slow the redevelopment of the land once brought into the UGB. A few of the larger parcels are owned by the school district and different churches that currently have some level of development on them. Assuming the school property develops as a school facility the amount of potential buildable area is further reduced. This combined with the existing level of development results in a future urban pattern of small neighborhoods that is similar to what is currently there now. Thus the social impacts to the existing residents regarding a loss of the rural lifestyle would be minimal. S Highway 213 and S Beaver Creek Road provide easily accessible connections between the reserve area and the commercial/employment node at the S Highway 213 and S Beaver Creek Road intersection and any additional development would increase the amount of traffic that occurs on these two roadways. However, given the modest amount of development that would occur, the overall increase in traffic would not be great and would not significantly increase VMT for the area or have significant energy consequences. The agricultural activity within the reserve area is minimal. The loss of the economic impact from these agricultural uses would not be considerable and the potential economic impact of residential urbanization, even though it is not significant will outweigh this loss. Overall this analysis area has low economic, social and energy consequences from urbanization.

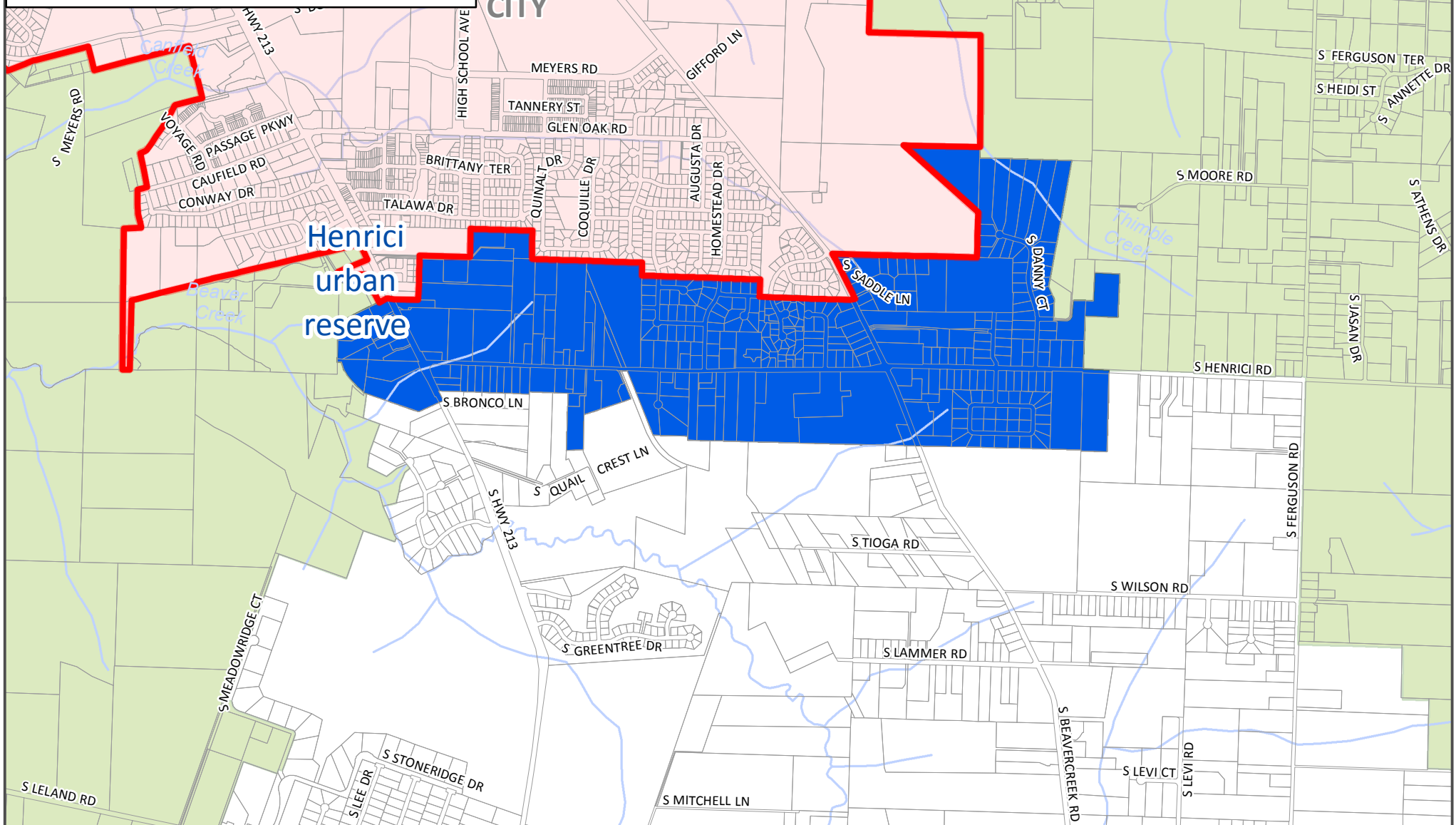
Compatibility of proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB (see attached resource land map)

There are two locations where farm or forest land is contiguous to the urban reserve area. The first area consists of one parcel at the northeast corner of the reserve area, north of S Danny Court that is zoned for timber use (TBR). This 27 acre parcel is located on the far side of Thimble Creek. The adjacent parcels inside the reserve area are currently built upon with little to no additional development expected due to the steep slope that runs down to Thimble Creek. Thus the proposed urban use will not impact any forest activities that occur on this adjacent forest land outside the UGB. The second location is along the western edge of the reserve area, west of S Highway 213 and is also zoned TBR. This small block of forest land includes a few rural residences and the land slopes down to Beaver Creek. Any future development of the reserve area would be at the top of the hill, away from any timber activities. The likely hood of timber harvesting is small given the residences and streamside protection requirements along Beaver Creek. Thus the proposed urban uses would be compatible with nearby forest activities in this location. Overall, the proposed urban uses have high compatibility with the nearby agricultural and forest activities occurring on farm and forest land.



Preliminary Urban Growth Boundary Alternatives Analysis Henrici

-  Inside the Urban Growth Boundary
-  Rural reserve
-  Other urban reserve
-  Stream routes

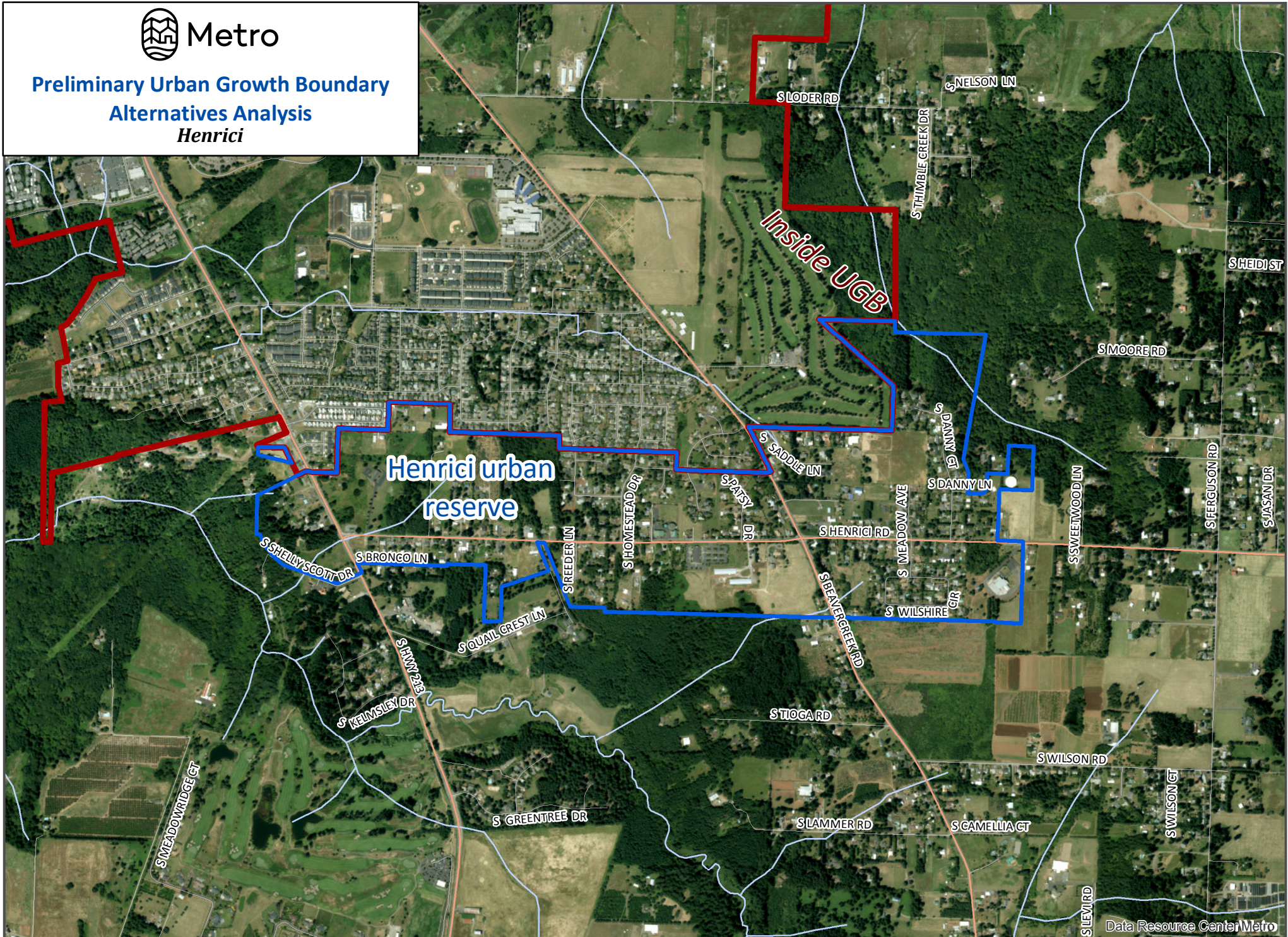


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
Preliminary Urban Growth Boundary
Alternatives Analysis
Henrici

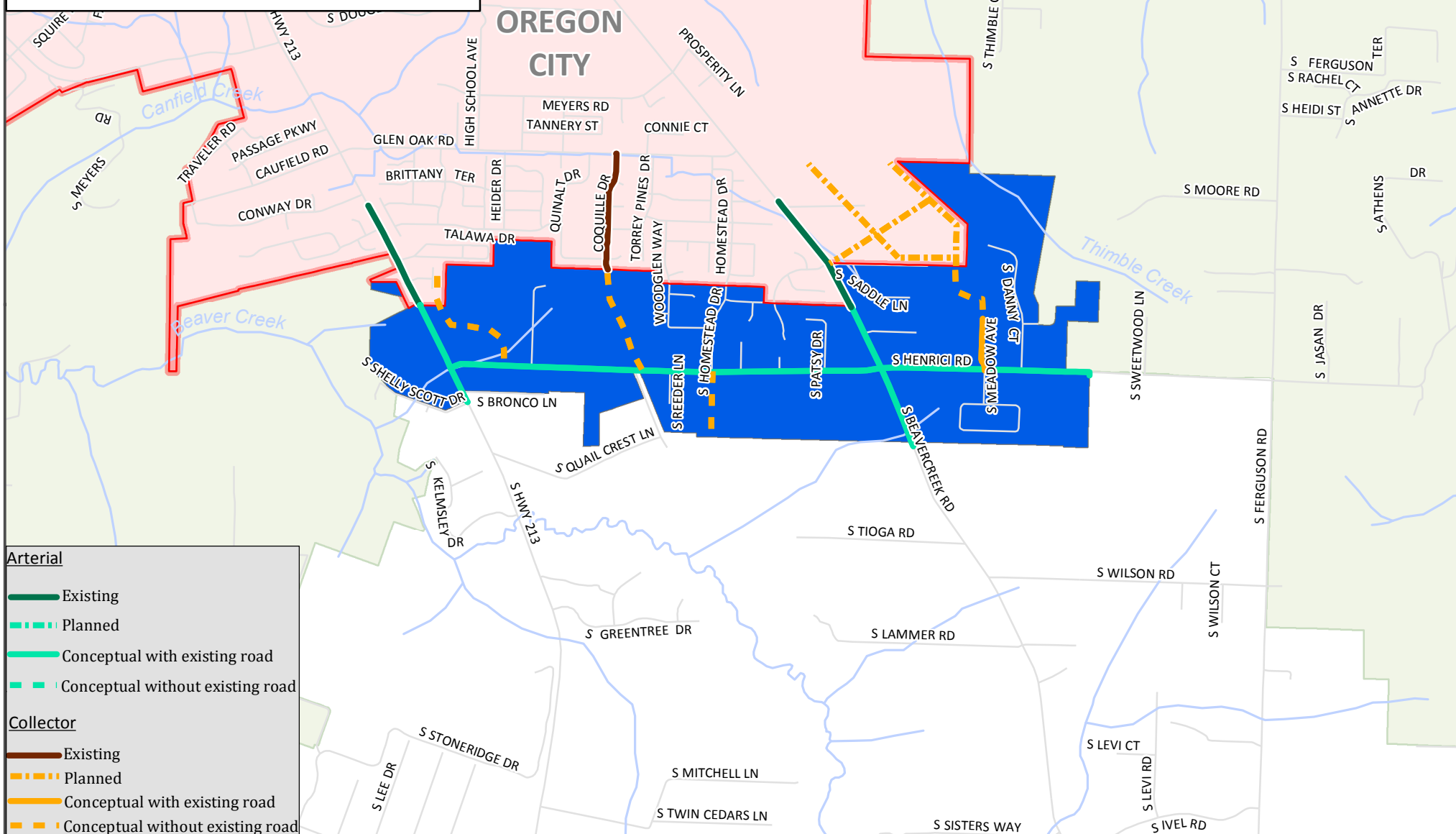


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Preliminary Urban Growth Boundary Transportation Analysis

Henrici

 Inside the Urban Growth Boundary
 Rural reserve
 Stream routes
 Other urban reserve

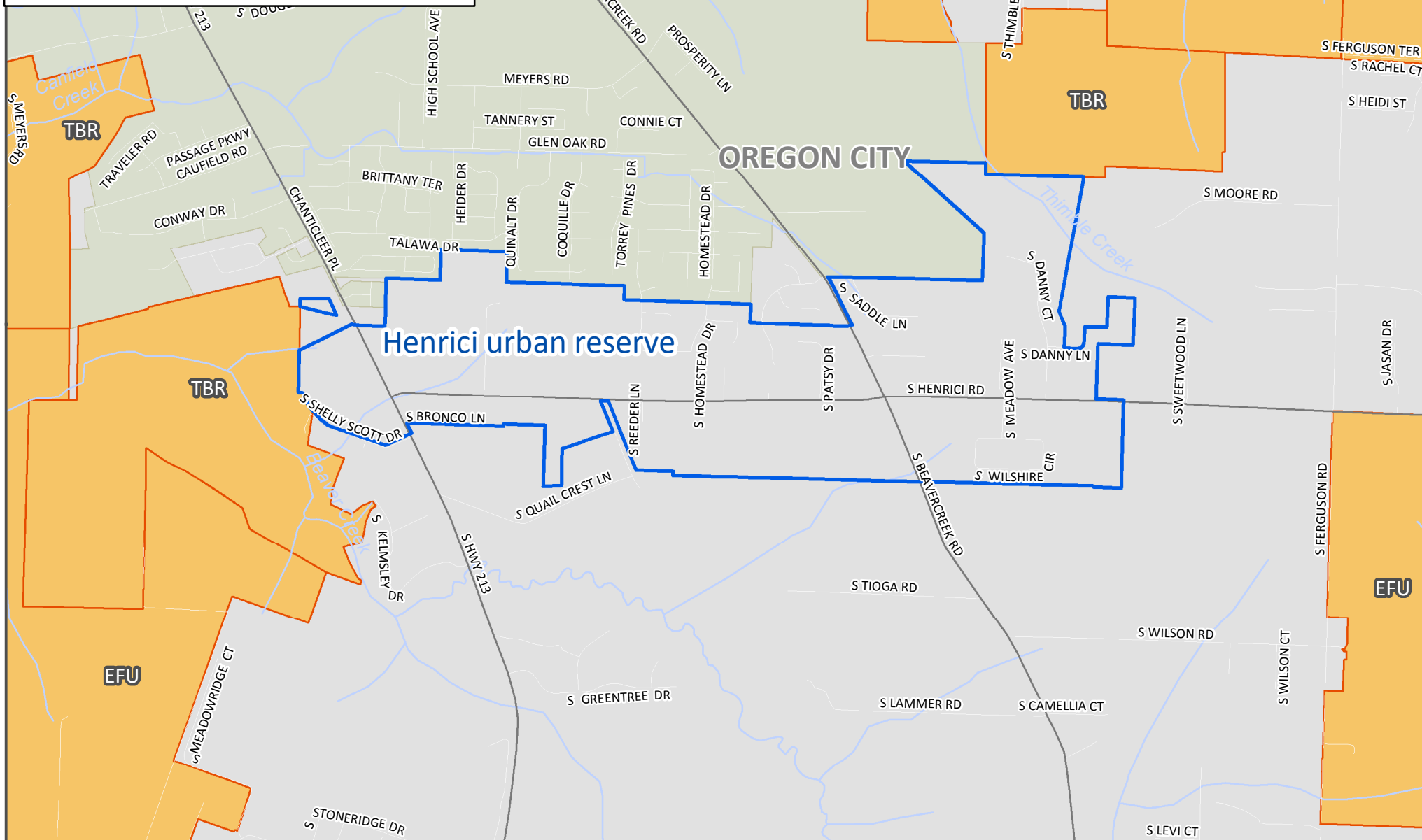


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Preliminary Urban Growth Boundary Alternatives Analysis Resource Land

Henrici



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