

ROY ROGERS EAST URBAN RESERVE AREA

Total Acres	205	Parcel Acres	190
Gross Vacant Buildable Acres	154	Net Vacant Buildable Acres	117

General Description (see attached map)

The Roy Rogers East Urban Reserve Area is a small sized area on the south side of Tigard that is north of SW Beef Bend Road between SW Roy Rogers Road and SW 150th Avenue. SW Beef Bend Road and SW Roy Rogers Road form the southern and western edges and the UGB forms the northern and eastern edges of the reserve area. The land gently slopes upward as you go north from SW Beef Bend Road and one stream flows south through the center of the area and another stream flows south in the eastern portion of the area. Access is provided by SW Beef Bend Road, SW Taylor Lane, SW April Lane, SW 150th Avenue and SW Roy Rogers Road.

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

This small reserve area contains 17 parcels or portions thereof that range from 6,100 square feet to 22 acres in size. Nine of the parcels are greater than ten acres in size and only one parcel is less than one acre. These nine parcels account for 162 acres or 85% of the parcel land area. The area contains rural residences, agricultural lands, and partially forested parcels. Overall, 13 of the 17 parcels have improvements, with a median value of \$184,310. Three parcels have improvement values over \$300,000.

GOAL 14 LOCATIONAL FACTORS

Efficient accommodation of identified land needs

This small reserve area is relatively flat with only a few locations of slopes greater than 10% and virtually no areas with slopes greater than 25%. Nine of the 17 parcels are greater than ten acres in size which provides the opportunity to consolidate parcels into larger blocks of land for residential or employment development. The two stream corridors divide the area into sections that still provide fairly large blocks of land for development. SW Beef Bend Road and SW Roy Rogers Road provide ease of access. While an employment use may be possible from a topographic stand point, Tigard has a considerable amount of employment land with better access to highways that reduces the need for any additional employment land for the City. Thus this reserve 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 City of Tigard provides sanitary sewer services that feed into the regional sanitary sewer system operated by Clean Water Services (CWS). CWS provides wastewater treatment through the Durham Waste Water Treatment Plant which has capacity to serve lands inside the UGB. CWS is currently working to complete significant capital improvements relating to their conveyance piping that are necessary to serve the land currently within the UGB. These improvements are scheduled to be fully complete in 2020.

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

Topography of the reserve area indicates that sewer flows will be directed towards the southwest to a pump station proposed within the Beef Bend South reserve area. The flows will be conveyed through Beef Bend South to the connection at SW Fischer Road in King City and on to the Durham treatment plant. As noted in the Beef Bend South report, available capacities within the existing lines are unknown at this time.

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

CWS has indicated some interceptor and/or trunk lines that are at or near capacity are being upgraded to serve the lands within the Cooper Mountain and River Terrace areas. These new facilities may have capacity for additional expansions, but the amount of excess capacity is not known at this time. Other impacts are local in nature, occurring as facilities are developed. New wastewater mains must be provided and the laterals off the mains are provided by the development community. The sanitary sewer cost analysis for this reserve area assumes that the Beef Bend South urban reserve will be developed prior to the Roy Rogers East urban reserve.

Sanitary Sewer Piping Costs

Sanitary sewer piping costs	Cost (in millions)
12 – 18” pipe (gravity)	\$2.79
Total	\$2.79

Water Distribution Services

Capacity of existing facilities to serve areas already inside the UGB

The Tigard Water District, along with the Cities of Durham, King City and Tigard has an Intergovernmental Agreement, (IGA) with the City of Tigard to serve the nearby areas already inside the UGB. This is known as the Tigard Water Service Area (TWSA). Information provided by the City of Tigard indicates that the water supply, storage, and piping are sufficient to serve the existing UGB. Minor deficiencies were identified with the Water Treatment Plant; however, there are plans to correct the deficiencies in the near future.

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

Water supply appears to be adequate, or the City of Tigard will be able to provide water as this area is urbanized. The City of Tigard is currently in the process of updating its water master plan. The master plan update will include this reserve area as well as the Roy Rogers West and the Beef Bend South urban reserve areas. The master plan will identify excess capacity within the system and determine if it can be used within the reserve areas. In addition, the City plans to acquire property in the adjacent River Terrace area that can be used for the construction of additional storage to serve the reserve areas.

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

The City of Tigard is currently updating the water master plan which includes planning for the reserve area. Water capacity appears to be adequate and the majority of impacts are local in nature, occurring as facilities are developed. New water mains must be provided to allow development of this reserve area and the laterals off the mains are provided by the development community. The amount of any upsizing that would be needed is not known at this time, but will likely be identified in the master plan update

Water Costs

Water piping/storage/pumping costs	Cost (in millions)
18" and larger	\$2.28
Storage/pumping	\$1.51
Total	\$3.79

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 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	\$3.53
Water quality/detention	\$3.65
Total	\$7.18

Transportation Services

Capacity of existing facilities to serve areas already inside the UGB

Roadway: Many of the roads in Tigard have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak, however there are numerous roads with higher levels of congestion. The following road sections have a congested volume/capacity ratio (<1.0): SW Scholls Ferry Road at SW 121st Ave in both directions; Highway 99W at SW Bull Mt. Road in both directions; SW MacDonald Street at SW Hall Blvd. in both directions; I-5 southbound at SW Carmen Drive; Highway 217 from SW Greenburg Road to SW 72nd Ave in both directions (a portion of the northbound lane at Highway 99W is severely congested); Highway 99W at Highway 217 in both directions; and Highway 99W at I-5 south bound. The following road sections have a severely congested volume/capacity ratio (>1.0): Highway 99W at I-5 northbound; Highway 217 at I-5 southbound; SW Durham Road west of SW Hall Blvd. in both directions; SW Durham Road east of SW Hall Blvd. in the westbound direction; SW Durham Road from SW 79th Ave to SW Upper Boones Ferry Road in both directions (a small segment at SW Upper Boones Ferry Road westbound is congested) and SW Tiedeman Ave at SW Tigard Street southbound. Highway 99W, Highway 217, I-5 and SW Scholls Ferry Road are classified as high injury corridors for automobiles and SW Durham Road is classified as a high injury corridor for bikes.

Transit: Nine TriMet bus routes provide service to Tigard, mainly along the arterial streets in the northern portion of the city near Highways 217 and 99W. WES Commuter Rail stops at the Tigard Transit Center. The majority of the city west of Highway 99W does not have transit service.

Bike: Tigard has over 26 miles of dedicated bike lanes, ten miles of established bikeways and numerous streets considered bike friendly that together create a well connected system that is dispersed throughout the residential areas. Most of the employment areas and the Town Center are served by bike facilities.

Pedestrian: Most of the residential neighborhoods in Tigard have sidewalks although there are some significant sections of the city that do not, including some near schools. The Town Center and employment areas are also fairly well served by sidewalks, however internal circulation in some business parks is lacking. The Fanno Creek Trail, Pathfinder-Genesis Trail and Tigard Street Trail provide other pedestrian options, mainly near the Town Center.

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

Roadway: The roads in Tigard near the reserve area have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak. Highway 99W at SW Bull Mt. Road, which is located just north of SW Beef Bend Road, has a congested volume/capacity ratio (<1.0) in both directions. Highway 99W at SW Tualatin Road in Tualatin, which is just south of SW Beef Bend Road, also has a congested volume/capacity ratio in both directions. SW Roy Rogers Road which is outside the UGB also has a congested volume/capacity ratio in both directions between SW Beef Bend Road and SW Bull Mt. Road.

Transit: No TriMet bus routes travel close to the reserve area. The closest transit stops for routes 93 and 94 are two miles from the reserve area via SW Beef Bend Road.

Bike: The closest bike facility inside the UGB is a dedicated bike lane on one side of the road on SW Roy Rogers Road at the western edge of the reserve area that extends north toward SW Scholls Ferry Road. There is a dedicated bike lane on SW Bull Mt. Road which is $\frac{3}{4}$ mile from the eastern edge of the reserve area up SW 150th Ave. SW Roy Rogers Road outside the UGB but adjacent to the reserve area has a bike lane on one side of the road.

Pedestrian: The adjacent residential neighborhoods in unincorporated Washington County have sidewalks although none of the sidewalks connect to the reserve area. In addition SW Beef Bend Road does not have sidewalks.

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

Roadway: It is expected that SW Beef Bend Road will see increased traffic as a result of urbanization of the reserve area. This could lead to increased traffic on Highway 99W that may increase congestion issues at SW Tualatin Road in Tualatin and at SW Beef Bend Road in Tigard where currently the highway has a congested volume/capacity ratio in both directions. SW Roy Rogers Road will also see increased traffic as a result of urbanization of the reserve area and may increase congestion issues on the road to the north and south, although the portion of SW Roy Rogers Road adjacent to the reserve area will be improved to urban arterial standards.

Transit: There is no impact to current TriMet bus routes. See transit analysis below.

Bike: The bike lane on SW Roy Rogers Road that is both inside and outside the UGB may see additional use, especially as the River Terrace area to the north builds out, although the roadway is not the most comfortable environment for most bicyclists due to automobile speed.

Pedestrian: The sidewalks in the adjacent residential neighborhoods will not be impacted as they provide internal circulation only.

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

SW Beef Bend Road, SW Roy Rogers Road and SW 150th Ave will be improved to urban arterial standards. SW Beef Bend Road is considered a $\frac{1}{2}$ street improvement as the south side of the road

is the responsibility of the Beef Bend South urban reserve area. SW 150th Ave is also considered a ½ street improvement as the east side of the road is inside the UGB. One new collector is needed to connect SW Beef Bend Road with the new collector in River Terrace.

Facility Class		
Arterials	Type	Cost (in millions)
	Existing/Improved	\$16.12
	Existing/Improved ½	\$26.58
Collectors	Type	Cost (in millions)
	New	\$10.55
Total		\$53.25

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, five days a week with two additional buses at a capital cost of \$800,000 (recurs every 16 years). Annual service cost is \$832,000 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

There is a small 600 foot segment of a stream that crosses the very northwest tip of the reserve area on its way to the Tualatin River. This stream flows within a forested canopy and has some associated riparian habitat. Given the location of the stream at the very top corner of the reserve area and the increased protection levels for streams and habitat areas within the UGB, urbanization of the area can occur without impacting this stream corridor.

A second stream flows south through the middle portion of the reserve area for approximately 1,980 feet, ultimately meeting the Tualatin River. This stream flows mainly through a forested canopy on rural residential lots and there are two ponds along the stream corridor that are not identified as wetlands. Riparian and upland habitat has been identified along the stream corridor. Any east-west roadway connections would impact the stream corridor and given the narrow shape of the reserve area, one would expect that local connections would be needed as it would be undesirable to direct all traffic to SW Beef Bend Road. The increased protection levels for streams and habitat areas within the UGB will help reduce roadway impacts to the stream corridor; however some impacts would be expected.

A third stream flows south through the eastern portion of the area for approximately 900 feet. This stream is partially in a wooded area and partially within agriculture fields and there is riparian habitat identified along the stream corridor. Likewise as above any east-west roadway connection would impact the stream corridor, although the relatively small area between the stream and SW 150th Ave may not need such a connection, depending on the future roadway pattern of the land to the north inside the UGB. Overall urbanization of the area could occur with low to moderate impacts to the stream corridors and habitat areas depending on the needed road connections.

Energy, Economic & Social

It is expected that urbanization of the reserve area will result in new housing replacing the existing rural residences. There are two significant blocks of land and one smaller location that could be developed to urban densities. This significant amount of development would generate social impacts on the existing residents of the area in terms of loss of sense of place and rural lifestyle. Directly to the north is the River Terrace area that was brought into the UGB in 2002 and is currently being developed to urban standards. This development activity lessens the loss of the rural lifestyle for the current residents. In addition, the combination of this area with the River Terrace area provides opportunities to knit the two areas into one urban community with a higher level of amenities such as parks and trails and develop efficiencies in infrastructure financing and delivery of services. There are a few significant locations of agricultural activities dispersed within the rural residences. The potential economic impact of urbanizing this area will outweigh the loss of the economic impact from these agricultural uses. The additional traffic generated through urbanization will impact SW Beef Bend Road, SW Roy Rogers Road and ultimately SW Scholls Ferry Road and Highway 99W which could provide negative energy impacts as currently these roadways are highly traveled. This is especially true when the River Terrace area builds out. The planned River Terrace Trail would run along the northern boundary of the area and the planned Roy Rogers Road trail along the western edge, providing trail connection points that could reduce some local automobile trips, thereby reducing VMT. Overall this reserve area has moderate 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)

South of SW Beef Bend Road is a large block of exclusive farm use (EFU) zoned land that extends beyond the Tualatin River. The land between the river and SW Beef Bend Road is a mixture of agricultural activities including field crops, row crops and orchard use, rural residences and a large retail nursery operation. SW Beef Bend Road would provide a buffer between the agricultural activities occurring in this location and a new urban area, however the road alone would not make the two uses compatible and there could still be complaints due to noise, odor, dust and the use of pesticides and fertilizer. In addition, the improvement of SW Beef Bend 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. Urbanization of the reserve area would significantly increase traffic on SW Beef Bend Road and SW Roy Rogers Road which could impact the movement of both farm equipment and goods. The proposed urban uses are

not compatible with the nearby agricultural activities occurring on this block of farm land. Mitigation measures on the urban side could be used to reduce conflicts between the urban uses inside the UGB and agricultural activities occurring on farm land outside the UGB.

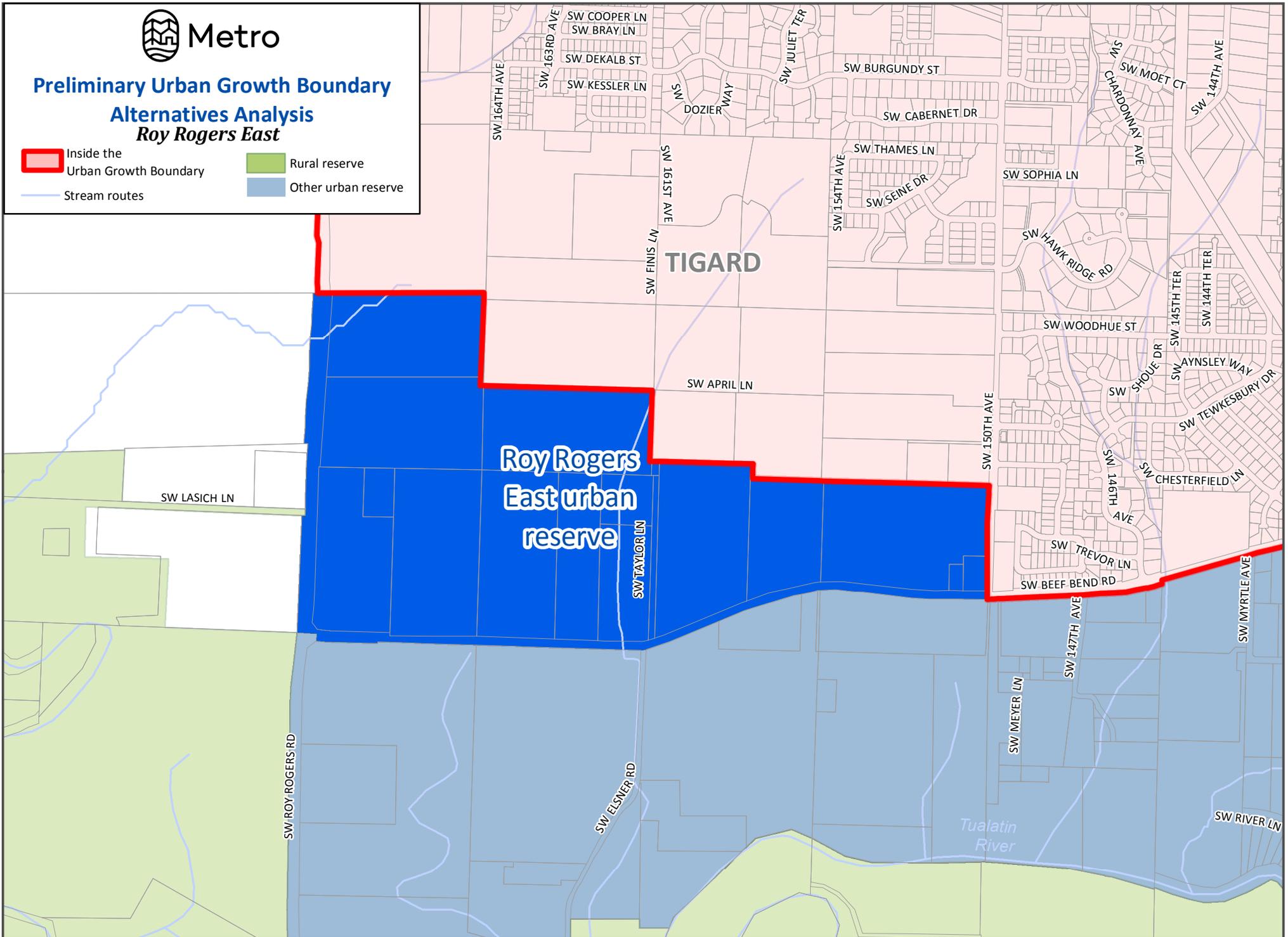
To the west is a significant block of EFU zoned land that extends both north and west, well beyond the Tualatin River, which provides a buffer for the farm land further west. The 155 acre block of EFU land between the Tualatin River and SW Roy Rogers Road that is directly adjacent to the reserve area contains some significant agricultural activities. SW Roy Rogers Road would provide a buffer between the agricultural activities occurring in this location and a new urban area, however the road alone would not make the two uses compatible and there could still be complaints due to noise, odor, dust and the use of pesticides and fertilizer. In addition, the improvement of SW Roy Rogers 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. Urbanization of the reserve area may significantly increase traffic on SW Beef Bend Road and SW Roy Rogers Road which could impact the movement of both farm equipment and goods. Thus the proposed urban uses are not compatible with the nearby agricultural activities occurring on this block of farm and forest land. Mitigation measures on the urban side could be used to reduce conflicts between the urban uses inside the UGB and agricultural activities occurring on farm land outside the UGB.

Overall, the proposed urban uses have low compatibility with nearby agricultural and forest activities occurring on farm and forest land outside the UGB and mitigation measures would be needed to increase the compatibility of the uses.



Preliminary Urban Growth Boundary Alternatives Analysis Roy Rogers East

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



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**Preliminary Urban Growth Boundary
Alternatives Analysis
Roy Rogers East**

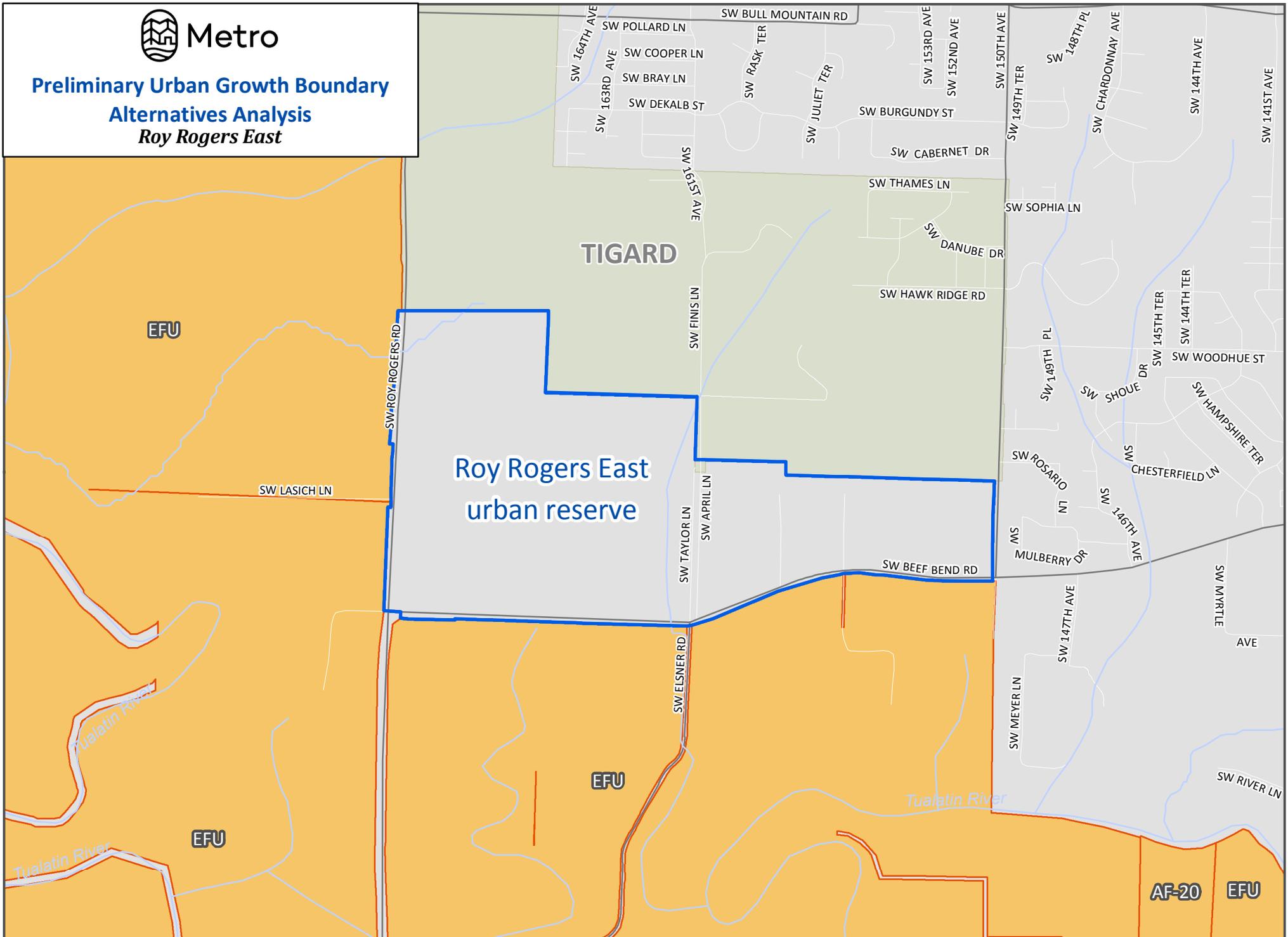


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**Preliminary Urban Growth Boundary
Alternatives Analysis
Roy Rogers East**



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