

BETHANY WEST URBAN RESERVE AREA

Total Acres	170	Parcel Acres	166
Gross Vacant Buildable Acres	97	Net Vacant Buildable Acres	73

General Description (see attached map)

The Bethany West Urban Reserve Area is a very small square shaped area on the north side of the Portland Community College Rock Creek campus. The UGB forms the boundary on the southern and eastern edges and rural reserves are to the west and north. Access to the area is provided by NW 185th Ave and NW Shackelford Road in North Bethany.

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

This small reserve area contains one complete parcel and one partial parcel that total 166 parcel acres. The partial parcel is a vacant 40 acre portion of the Portland Community College (PCC) Rock Creek campus and includes an unnamed stream and a power line that runs diagonally through the reserve area. Just over half of the other 126 acre parcel is in agricultural production and contains one barn. The remaining portion of this parcel includes Rock Creek and a small section of the power line.

GOAL 14 LOCATIONAL FACTORS

Efficient accommodation of identified land needs

This very small reserve area contains a significant amount of natural resources along Rock Creek and the unnamed stream that reduces the buildable area to an approximately 73 acre piece in the northwest section of the area. This 73 acre section borders NW 185th Ave and is relatively flat. The isolated nature of the reserve area reduces its efficiency for employment use although employment may provide a better buffer for the agricultural lands to the north and west. This area is able to accommodate a small portion of a residential or employment 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

Clean Water Services (CWS) is the service provider for unincorporated Washington County. CWS provides wastewater treatment through the Rock Creek Waste Water Treatment Plant. It appears that there is adequate capacity to meet UGB needs.

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

An existing 24-inch sanitary sewer trunk crosses the reserve area along the north side of Rock Creek. Flows continue via gravity through the CWS trunk and interceptor sewer lines and reach the Rock Creek treatment plant. CWS has indicated that the Rock Creek treatment plant has capacity available and the existing sewer trunk and interceptor line presumably also have available capacity.

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

New sewer mains will be required for development to occur and laterals will be constructed by the development community. Impacts to the treatment plant are expected to be minimal with no anticipated upgrades due to the nominal amount of development expected in this small reserve area. The amount of up-sizing (if any) that would be needed is not known at this time.

Sanitary Sewer Piping Costs

Sanitary sewer piping costs	Cost (in millions)
Less than 12" pipe (gravity)	\$1.14
Total	\$1.14

Water Distribution Services

Capacity of existing facilities to serve areas already inside the UGB

Water is supplied to the adjacent area inside the UGB by the Tualatin Valley Water District (TVWD). TVWD has indicated that there is sufficient capacity in terms of water supply, treatment, storage, and piping to serve areas within the current UGB.

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

TVWD indicated water for this reserve area appears to be adequate; or they will be able to generate the supply as this area comes online. The estimated average daily demand generated by the development of the reserve area is approximately 0.2 MG.

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

Water New water mains will be required for development to occur and laterals will be constructed by the development community. The amount of up-sizing (if any) that would be needed is unknown at this time. TVWD noted that the bridge on NW Shackelford Road in North Bethany that would ultimately connect to NW 185th Ave would need to be constructed in order to provide water service

to the area from North Bethany. For the purposes of this report, it is assumed that the bridge will be constructed along with the transportation improvements.

Water Costs

Water piping/storage/pumping costs	Cost (in millions)
12" and smaller	\$0.72
18" and larger	\$2.16
Storage/pumping	\$0.56
Total	\$3.44

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	\$1.67
Water quality/detention	\$1.65
Total	\$3.32

Transportation Services

Capacity of existing facilities to serve areas already inside the UGB

Roadway: All of the nearby roads in the UGB have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak. Currently Washington County is completing safety and capacity improvements to NW Springville Road between NW 185th and 178th Avenues. The project is expected to be completed in September 2018. NW 185th Ave is classified as a high injury corridor for automobiles and bikes.

Transit: TriMet bus line 52 provides service to Portland Community College (PCC) Rock Creek from the Beaverton Transit Center along NW Springville Road and 185th Ave. TriMet bus lines 47 and 67 also provide service to PCC Rock Creek along NW Springville Road from the Hillsboro Transit Center and the Merlo MAX Station respectively, via NW Bethany Boulevard.

Bike: There is a dedicated bike lane on NW 185th Ave that changes to an established bikeway south of NW West Union Road and extends south past Westview High School and Rock Creek Elementary School. The Rock Creek Trail which runs east for over two miles and west for over a mile intersects with NW 185th Ave. The Waterhouse Trail connects to the Rock Creek Trail providing a north-south route that extends to Highway 26.

Pedestrian: There are sidewalks in the new residential development adjacent to the east in North Bethany. There are no pedestrian facilities on the PCC Rock Creek campus near the reserve area.

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

Roadway: All of the nearby roads in the UGB have an acceptable volume/capacity ratio (<0.9) for the 2015 pm peak. Currently Washington County is completing safety and capacity improvements to NW Springville Road between NW 185th and 178th Avenues. The project is expected to be completed in September 2018.

Transit: There is a transit stop for TriMet bus line 52 approximately ½ mile from the reserve area at the corner of NW Springville Road NW 185th Ave.

Bike: The dedicated bike lane on NW 185th Ave is a little over a ½ mile from the reserve area. This bike facility continues south for about a mile and connects to the Rock Creek Trail which runs for a number of miles and provides the opportunity to connect to additional trails.

Pedestrian: The sidewalks in the new residential development adjacent to the east in North Bethany provide connections to additional residential developments, Springville Elementary School and new park facilities. It appears there will be one connection to the reserve area along NW Shackelford Road.

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

Roadway: NW 185th Ave and NW Springville Road would see additional traffic as a result of urbanization of the reserve area, although the impact would be minimal from this very small constrained urban reserve.

Transit: TriMet bus line 52 would most likely see some additional ridership especially if the ½ mile distance from the transit stop to the reserve area was improved with pedestrian facilities.

Bike: The dedicated bike lane on NW 185th Ave would most likely see some additional use especially if the bike lane is extended to the reserve area. This would probably result in additional use of the Rock Creek Trail as well.

Pedestrian: The sidewalks in the adjacent residential area in North Bethany would most likely see additional use since future schoolchildren from the reserve area would attend either Springville or Sato Elementary School in North Bethany. Sidewalks extending to the transit stop would also see additional use.

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

NW 185th Ave will need to be improved to urban arterial standards. A new collector will be needed to connect NW 185th Ave to NW Shackleford Road in North Bethany.

Facility Class		
Arterials	Type	Cost (in millions)
	Existing/Improved	\$22.90
Collectors	Type	Cost (in millions)
	New	\$16.55
Total		\$39.45

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 60 minute headways for all day service five days a week by extending line 52, with one additional bus at a capital cost of \$400,000 (recurs every 16 years). Annual service cost is \$364,000 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

Rock Creek flows diagonally in a southwest direction through the reserve area for 4,700 feet through wooded and open land. A second unnamed stream that is located south of Rock Creek also flows in the same direction for approximately 3,180 feet, mostly in open fields. Both streams are located within a large floodplain and two National Wetland Inventory (NWI) wetlands (0.8 & 2.3 acres) and one PCC identified wetland (12.5 acres) are associated with the stream corridors. There is riparian and upland habitat associated with the streams and floodplain area. Given the increased protection levels for streams, wetlands, habitat areas and floodplains within the UGB, and the location of the stream corridors and the power line in the southern portion of the reserve area adjacent to the Portland Community College, urbanization of the area can occur with minimal impact to this stream corridor and habitat areas.

Energy, Economic & Social

This small reserve area contains no existing rural residences, thus the impact of urbanization on the existing residents of the area in terms of loss of sense of place and rural lifestyle is nonexistent. The additional traffic generated through urbanization will be small, however all traffic will be directed to NW 185th Ave which could contribute minor negative energy impacts, as 185th Ave is already heavily used and would expect to see additional traffic as North Bethany is built out. The area contains limited agricultural activities and the economic loss from these existing agricultural uses would be small, while the potential economic impact of urbanizing this area near Portland Community College will outweigh the economic loss from the limited agricultural uses. Overall this 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)

Farm and forest land borders the reserve area to the north and west whereas the UGB borders the area to the east and south. To the north is a small block of Exclusive Farm Use (EFU) zoned land between the reserve area and NW Germantown Road that contains some agricultural activities but also two rural residences and forested land along Rock 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 NW 185th Ave which could impact the movement of both farm equipment and goods, although most of the traffic would be expected to move south towards Highway 26 away from the agricultural activities. The proposed urban uses are not compatible with the directly adjacent agricultural activities occurring to the north and mitigation will be needed.

To the west is a block of EFU zoned land that extends for quite a distance and includes field and row crops and nursery production. The land directly adjacent to the reserve area includes a forested parcel and a few rural residences with some associated agricultural activities. NW 185th Ave provides a buffer between the agricultural activities occurring in this location and the 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, although the forested parcel and the limited agricultural uses that are directly adjacent to the reserve area should lessen complaints. In addition, the improvement of NW 185th Ave 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 which may be addressed through road design. Urbanization would increase traffic on NW 185th Ave which could impact the movement of both farm equipment and goods, although most of the traffic would be expected to move south towards Highway 26 away from the agricultural activities. In addition, most of the agricultural activities occurring further west gain access from NW Cornelius Pass Road, which would help reduce traffic impacts. Thus, the proposed urban uses are generally compatible with the agricultural activities occurring on the farm land west of NW 185th Ave with mitigation and road design efforts.

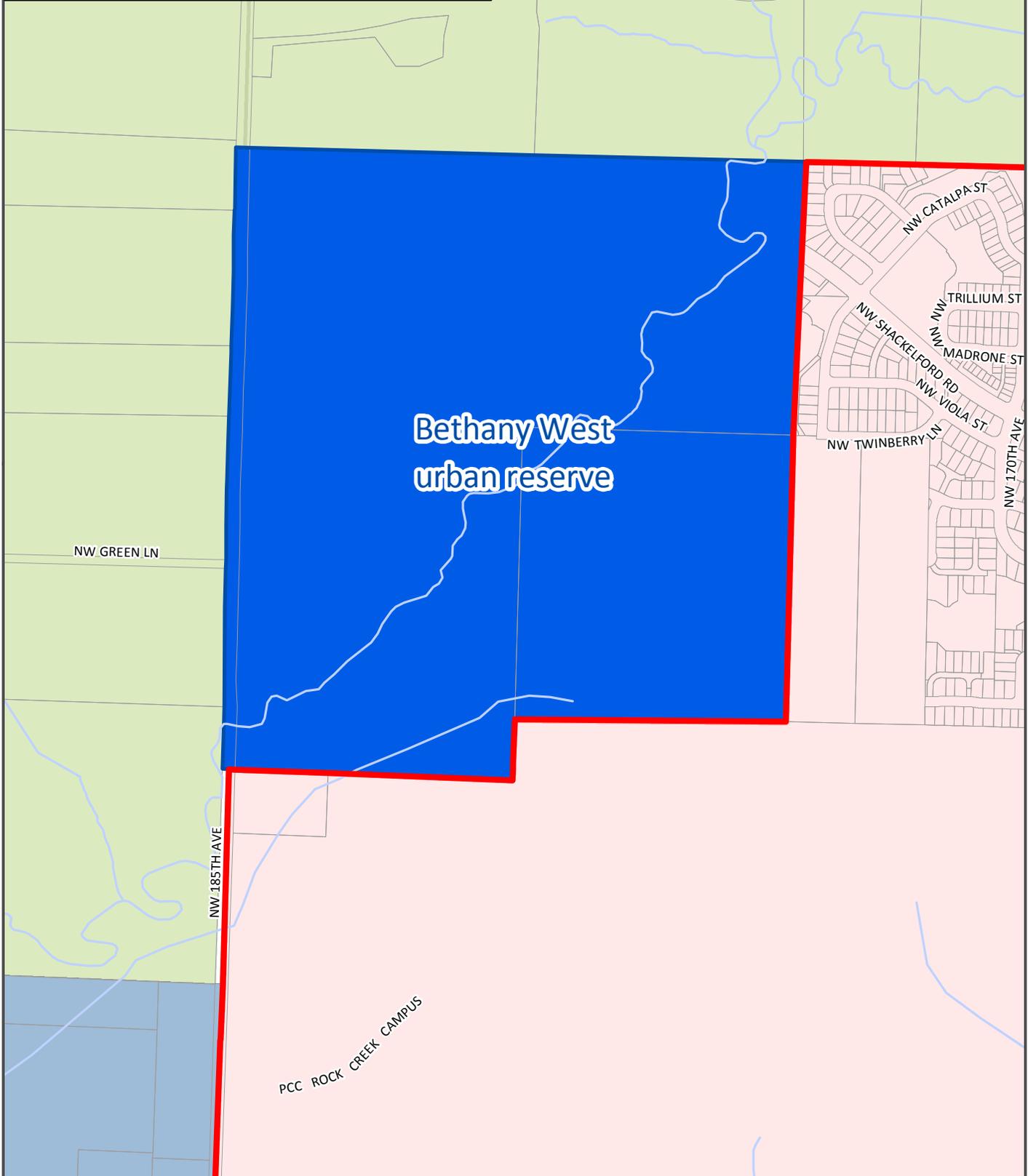
Overall, the proposed urban uses have medium compatibility with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.



Metro

**Preliminary Urban Growth Boundary
Alternatives Analysis
Bethany West**

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

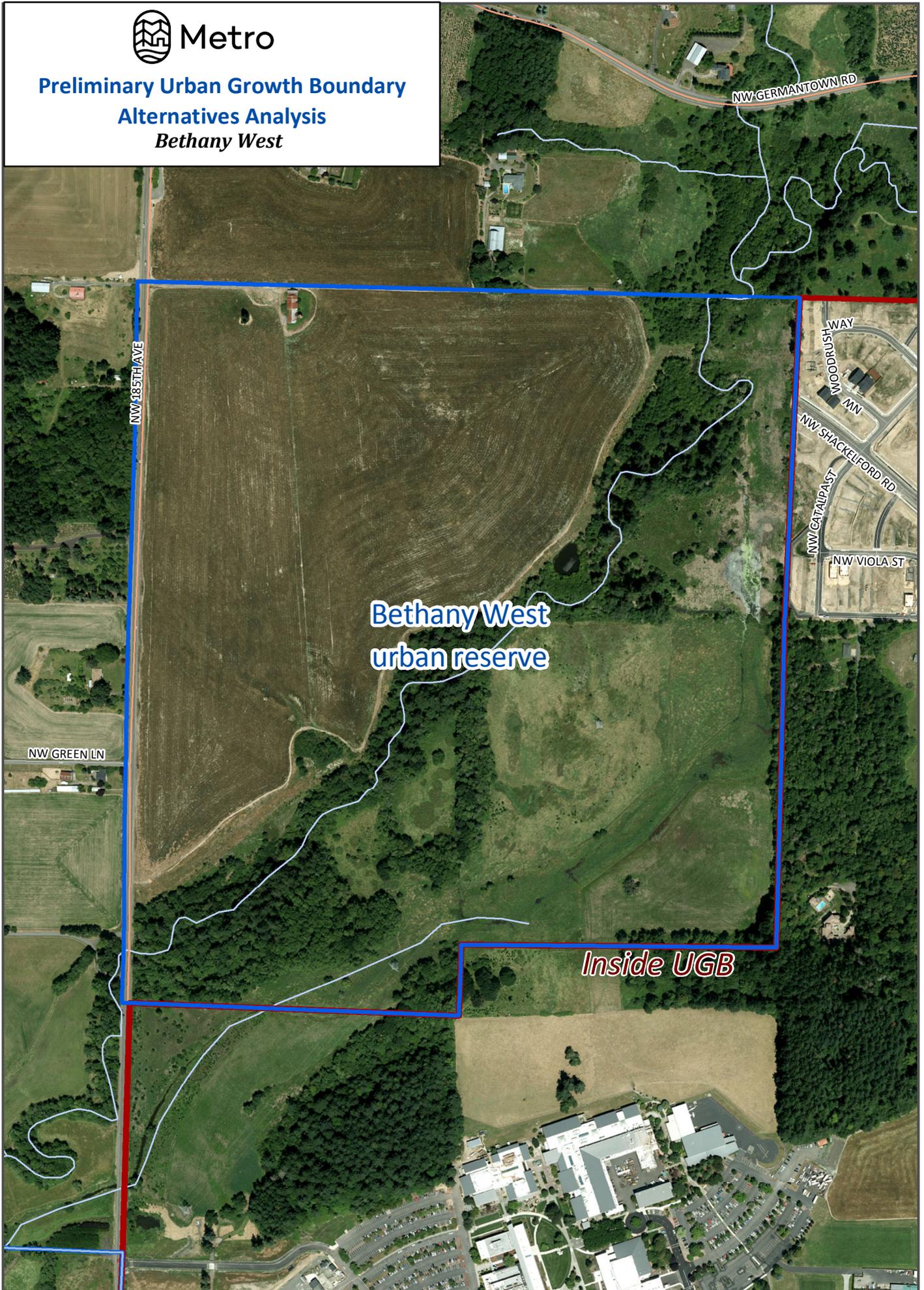


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Metro

Preliminary Urban Growth Boundary
Alternatives Analysis
Bethany West



Bethany West
urban reserve

Inside UGB

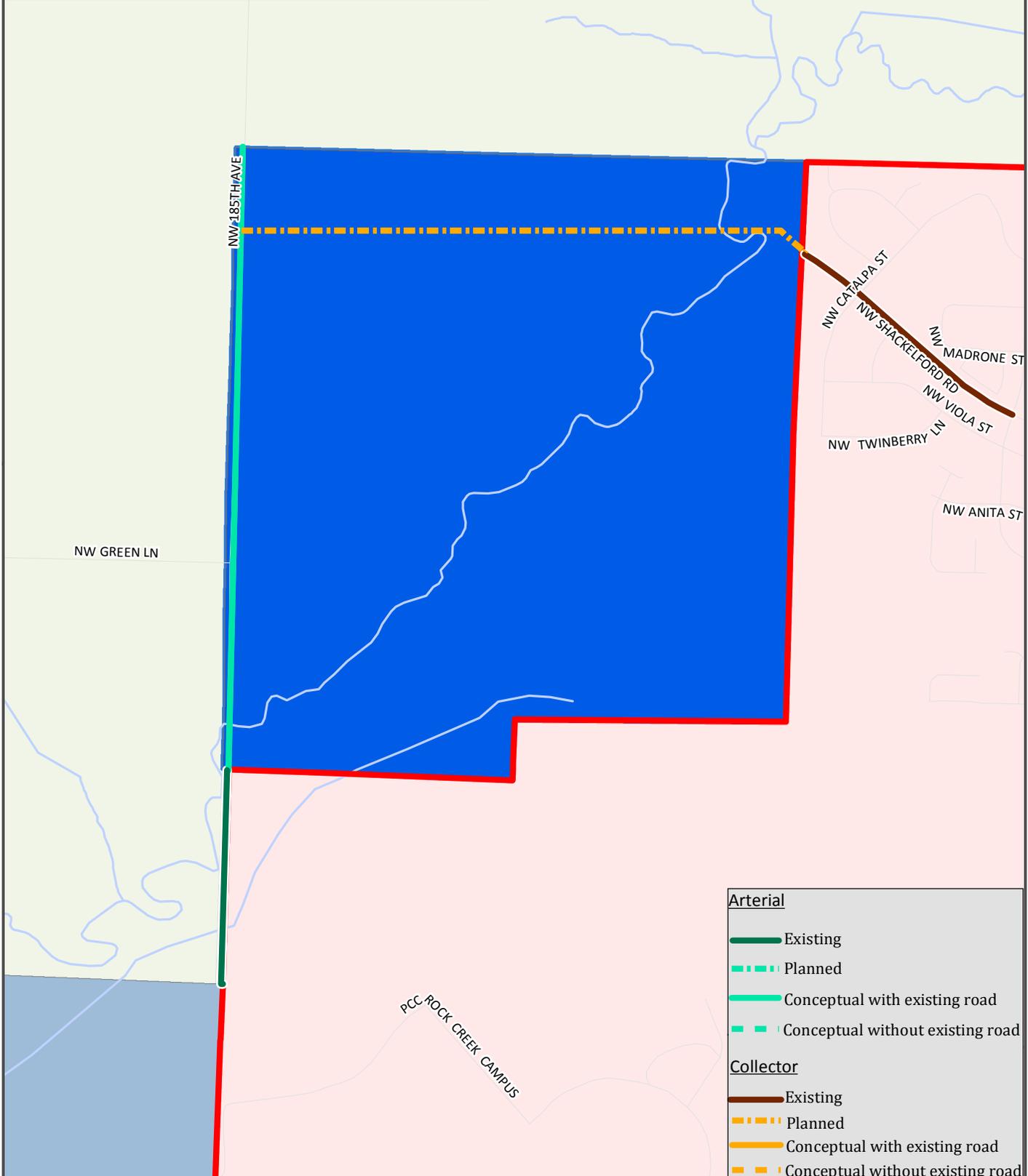
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Metro

Preliminary Urban Growth Boundary Transportation Analysis Bethany West

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



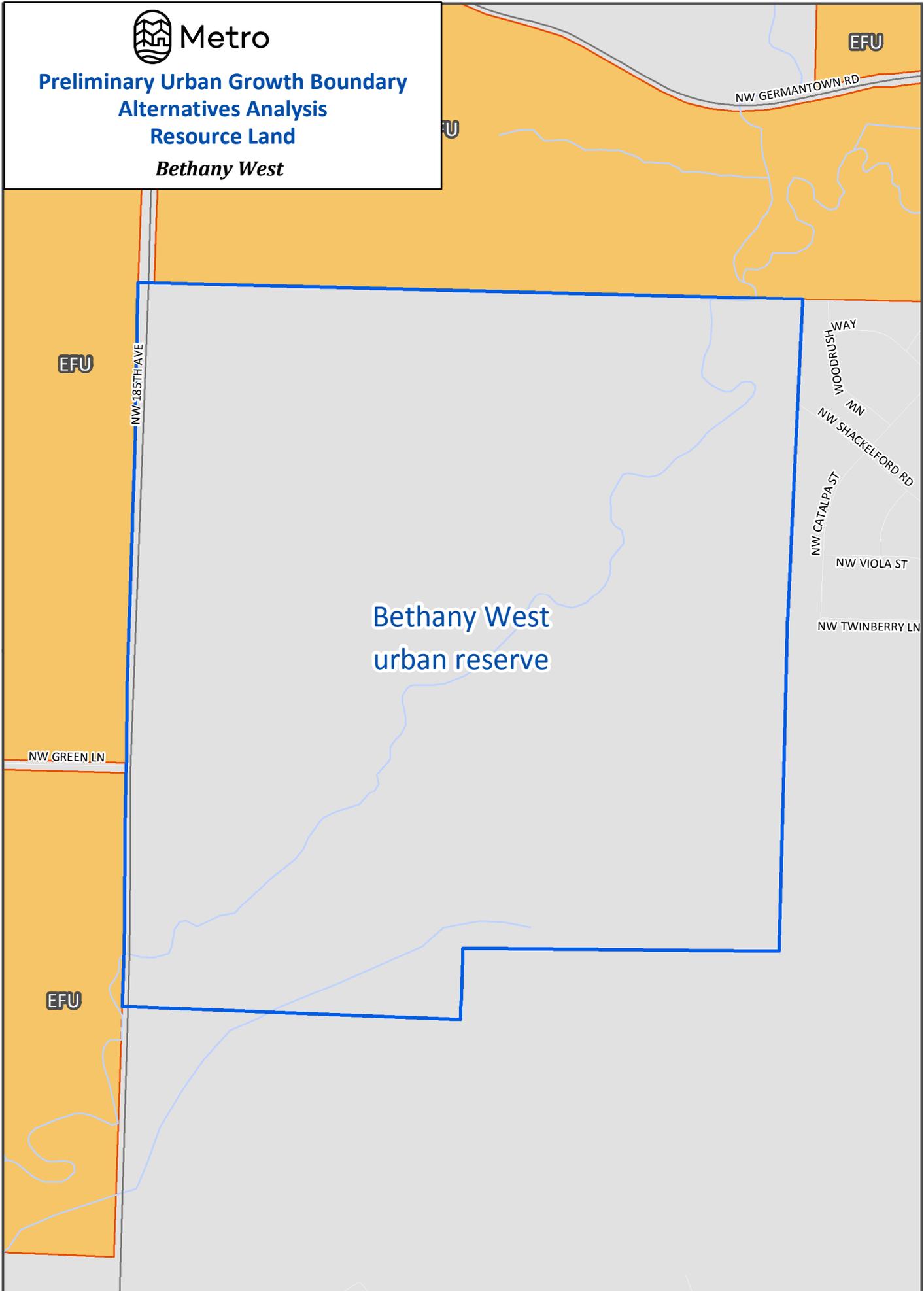
- Arterial**
- Existing
 - Planned
 - Conceptual with existing road
 - Conceptual without existing road
- Collector**
- Existing
 - Planned
 - Conceptual with existing road
 - Conceptual without existing road

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Metro

Preliminary Urban Growth Boundary
Alternatives Analysis
Resource Land
Bethany West



Bethany West
urban reserve

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