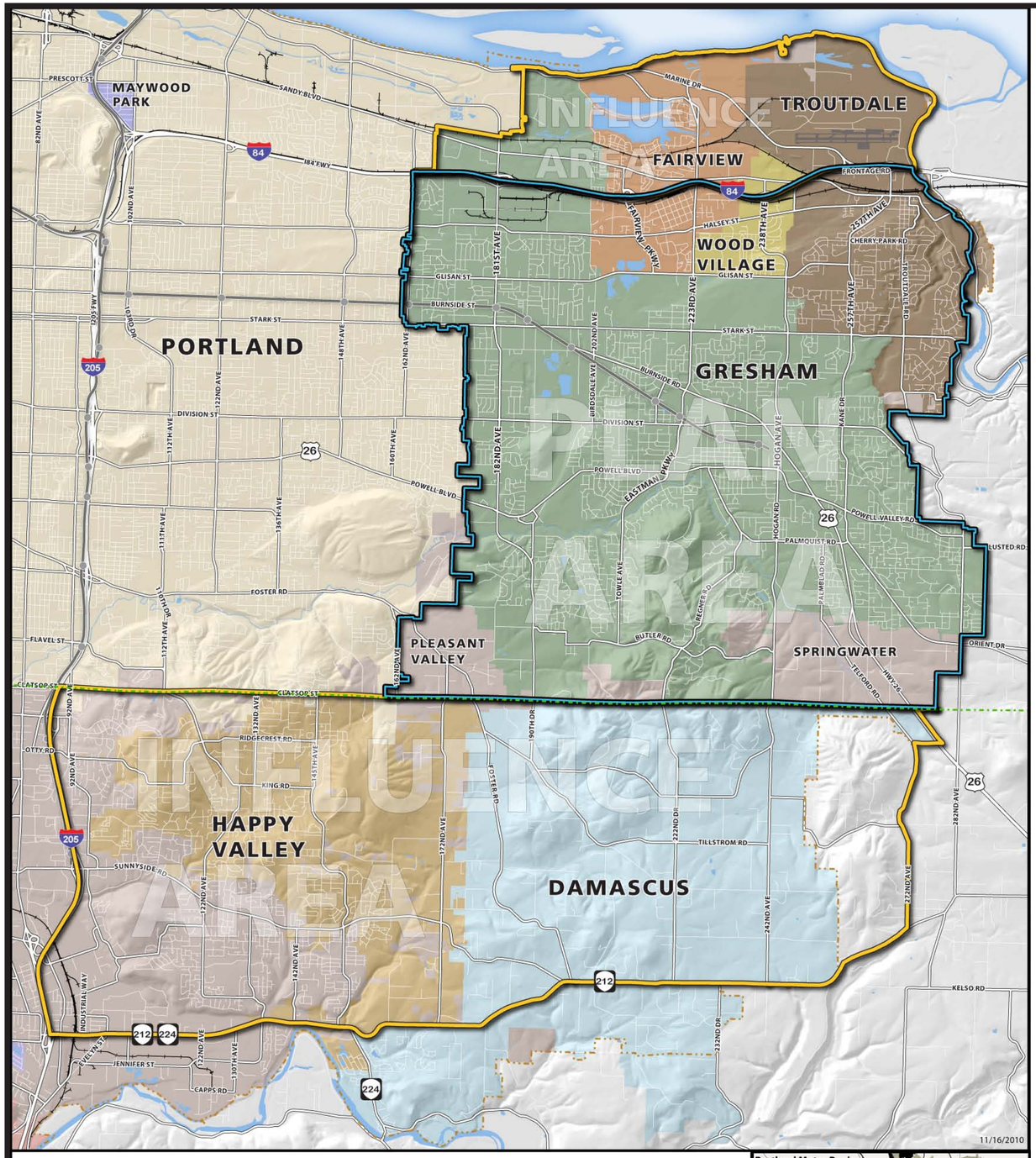
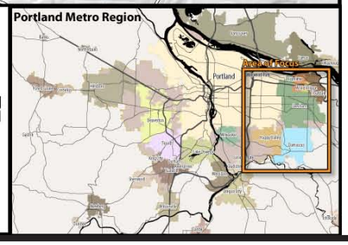


East Metro Connections Plan
Plan and Influence Areas

Plan Area
Influence Area
County Line
Urban Growth Boundary
Light Rail
Railroad
0 Mile 1

Plan Area (Area for which improvements will be proposed): East Multnomah County, which includes the four city area of Gresham, Fairview, Wood Village, Troutdale and the unincorporated Pleasant Valley and Springwater areas between I-84 (north) and the County Line (south).
Influence Area: Comprises two areas within two county/six city area (including Happy Valley and Damascus): 1) The portions of the 4 city area between the Columbia River (north) to I-84 (south) and 2) Between the County Line (north) and HWY 212 (south), and I-205 (west) to 272nd Avenue (east). The Influence Area will include a level of analysis sufficient to assess connectivity and land use relationships with the Plan Area.



Project Goals

Support north/south connectivity between I-84 and US 26, as well as east/west connectivity and capacity in the East Metro plan area.

Make the best use of the existing transportation system.

Develop multiple solutions that encompass all transportation modes.

Foster economic vitality.

Distribute both benefits and burdens of growth.

Enhance the livability and safety of East Metro communities. Ensure that East Metro is a place where people want to live, work and play.

Support the local land use vision of each community.

Enhance the natural environment.

Overview

This document is intended to orient you to preliminary technical findings of the East Metro Connections Plan.

The findings focus on the transportation system and related issues. From these findings, we can begin to see problems and opportunities. When we knit these together, we form an overall picture of the problem that the East Metro Connections Plan can address.

The Steering Committee will provide input and seek to confirm a working problem statement. This problem statement is based on what we know now and what we anticipate in the future. The Steering Committee will revisit the working problem statement should we discover new or contrary information.

Next Steps

From a shared understanding of the problem, we can begin to talk about solutions. A range of strategies designed to solve the problems will be proposed and evaluated in fall 2011. The Steering Committee, local elected councils and commissions, key stakeholders and the general public will be asked to provide feedback on proposed strategies.

As the evaluation yields results for consideration, the Steering Committee will work to refine and confirm preferred strategies in collaboration with their respective elected bodies during the winter and spring of 2012. The Steering Committee will also weigh in on an implementation plan that identifies specific investments and gives a blueprint to phasing and funding, in order to achieve the plan goals and move the communities forward, together.

Table of Contents

July 27, 2011

East Metro Connections Plan Working Problem Statement Packet

East Metro Connections Plan: Working Problem Statement

The design and function of the road system conflicts with present and future transportation and development goals of the community. A range of system improvements, including system utilization technologies, creating some new capacity, improving bicycle and pedestrian options, should all be considered and evaluated as part of an overall solution. The designated National Highway System freight route does not presently work as needed.

Economic and community development are linked to the transportation system. Economic vitality is hampered by infrastructure gaps (transportation and otherwise) and market conditions, which could be improved with regionally coordinated, targeted investments, local policies and incentives. Near- and long-term gains can be realized through strategies that balance development aims with community health, livability and equity goals.

Working Problem Statement Narrative

There are important East Metro destinations that need better connectivity in order to realize local aspirations.

Opportunities exist to better align roadway function and design, which are currently mismatched. Though all roads need to serve both local and through trips, there is an **underlying tension between drivers moving through the Plan Area and those accessing residential and commercial areas and other local destinations**. This produces problems, including safety and livability issues, land use conflicts and reduced efficiency of the transportation system. These issues are interrelated and impact economic and community development. There may be an opportunity to reduce conflicts through mode "specialization" and associated design and access management techniques. Determining the location(s) for designated freight routes(s) will be a critical, early step.

Currently, **roadway function, rather than capacity, is the larger challenge**. Although drivers may experience delay in some locations at peak periods, roadway capacity in the East Metro Connections Plan Area is not a constraint under existing conditions. Some areas are close to having operational problems and indicate possible future congestion, especially at key intersections including several along 242nd. New growth areas to the south (including Springwater, Pleasant Valley, and Damascus) and to the north (in the Columbia Cascade River District) will increase future demand for travel between homes and jobs in the Plan Area. More will be known about problems under future conditions after thorough analysis scheduled for early fall 2011.

The current **freight route isn't working** as needed. The distribution of vehicle trips (cars, buses and trucks) is relatively balanced across the four primary north/south arterials providing access between I-84 and US 26. However, the designated National Highway System (NHS) freight route along 181st/Burnside poses operational and efficiency challenges for truck drivers, suffers from inherent conflicts between freight and pedestrian, bicycle and MAX users, and is the site of more frequent and serious crashes than elsewhere in the Plan Area.

The efficiency of the transportation system needs improvement. Opportunities to use the existing system more effectively include deploying technologies such as synchronized signal systems and by making trips by transit, walking or biking easier for people. Some portion of future roadway demand can likely be effectively managed through targeted investments in system efficiency that will be identified as part of this effort.

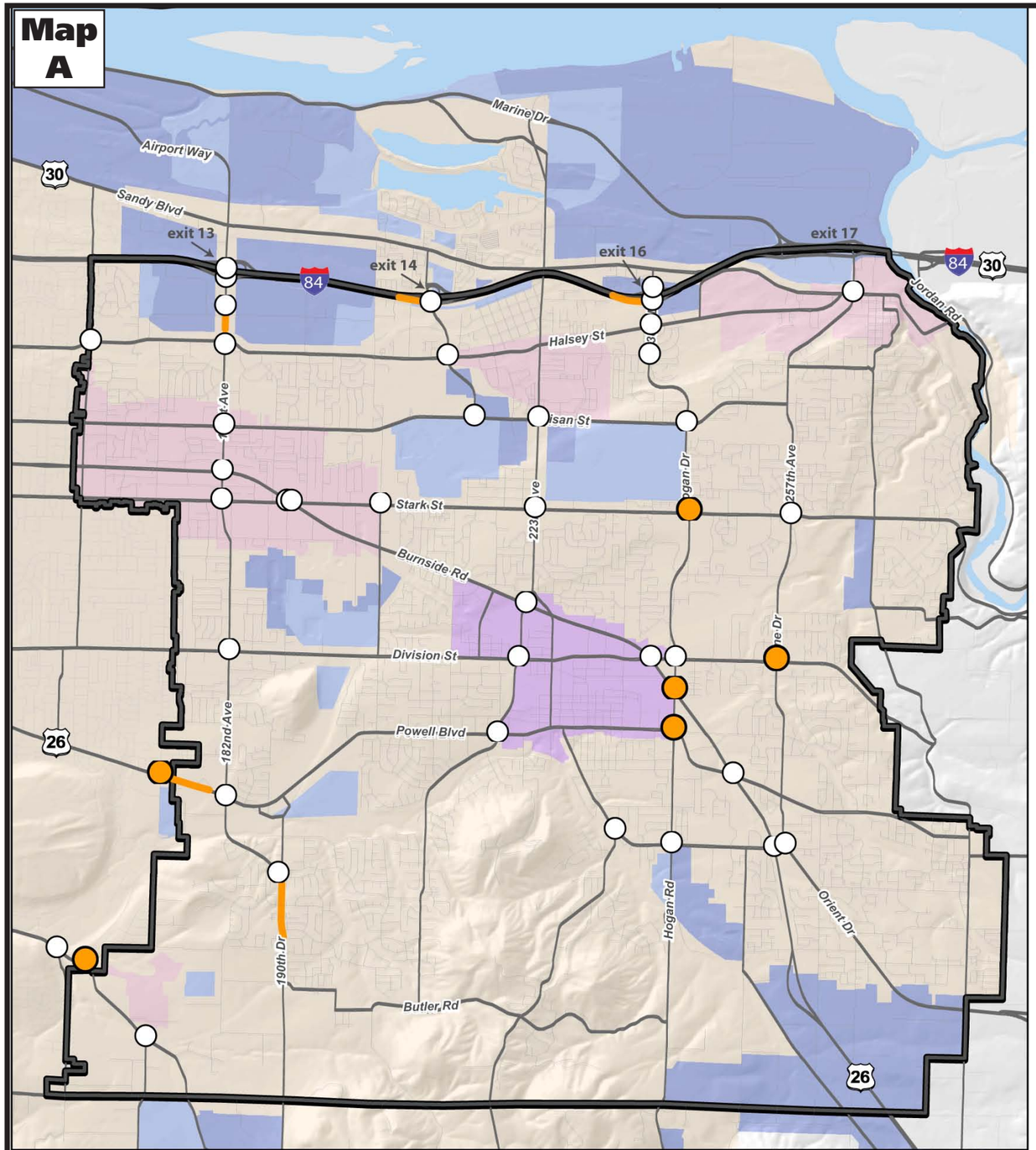
Targeted and regionally **coordinated investment** is needed to overcome market and other challenges to desired economic and community development. Factors such as a shared vision of development, in-place plans and policies, access to I-84, available land and proximity to the Columbia River Gorge and Mount Hood recreational areas **position East Metro communities for success**. However, low market values, lack of clear identity, perception of crime in some areas and lack of coordinated planning has prevented centers from achieving the kind of development they seek.

All parties recognize that what benefits one city has direct or indirect benefits for nearby cities. **Infrastructure and economic development are related**. The study area boasts a number of existing large industrial areas, several major employers, with good access to I-84 and airports. However, the need for localized traffic improvements, poor north-south transit access, existing development and lack of unified recruitment strategy has **prevented realization of employment goals**. The Springwater area offers greenfield development potential but needs major infrastructure improvements, better connections to US 26 and I-84 and site assembly to be successful.

Lack of appropriate or complete infrastructure leads to auto dependency in areas and for certain populations. This **inhibits access to goods and services, and upward mobility**. People reliant on transit face challenges because of north-south transit service deficiencies. Gaps in bike paths, trails and sidewalks make longer pedestrian and bicycle trips difficult, which can inhibit use of parks and natural areas and the transit system.

Current Vehicular Conditions

Map A



EMCP - Existing Volume/Capacity Ratio

- road segment greater than 90% capacity (2-hour PM peak, model)
- intersection greater than 90% capacity (1-hour PM peak counts)
- intersection analyzed
- Plan Area
- Regional center
- Town center
- Employment Land
- Industrial Land

Areas with Volume/Capacity greater than 90% are considered congested, but not severely congested.

source: 2010 Regional Model, 2011 traffic counts

N 0 1 Mile

Problem Statement

Area vehicle traffic conditions indicate no significant delay in the overall network.

Although drivers may experience delay in some locations at peak periods, roadway capacity in the East Metro Connections Plan Area is currently not a constraint for the overall road network. With expected future traffic growth, there are several Regional Transportation (RTP) capacity enhancement projects that will likely be needed. Capacity projects to accommodate 2035 growth will be developed, but the level and precise location of needs will not be known until the 2035 traffic forecasts are available.

Given traffic patterns, all major arterials must provide for through-trips as well as local access, and distribute benefits and burdens of growth.

The need to provide for multiple trip modes, destinations, purposes and needs on key arterials often requires skillful design and functionality tradeoffs between speed and safety, development and livability, and other important values. To the extent that revised growth forecasts and better system utilization and multimodal improvements can reduce the need for road capacity enhancements, decision-makers will gain funding and design flexibility to solve safety, operational and efficiency problems. Projects designed to address operational and safety problems, to reduce traffic conflicts with schools and homes, or to increase access to local business and freight reliability and efficiency will be developed. Analysis planned for early fall will lead to strategies addressing a wide range of problems wherever they arise.

Key Findings

Modeled Level of Service (LOS) shows little congestion in 2010.

There was not severe congestion in 2010: the roadways operate at or better than design capacity in the 2-hour PM peak. Early indications of future problems may correlate to roadways operating at more than 90% of their capacity now; these are shown as orange lines on the map.

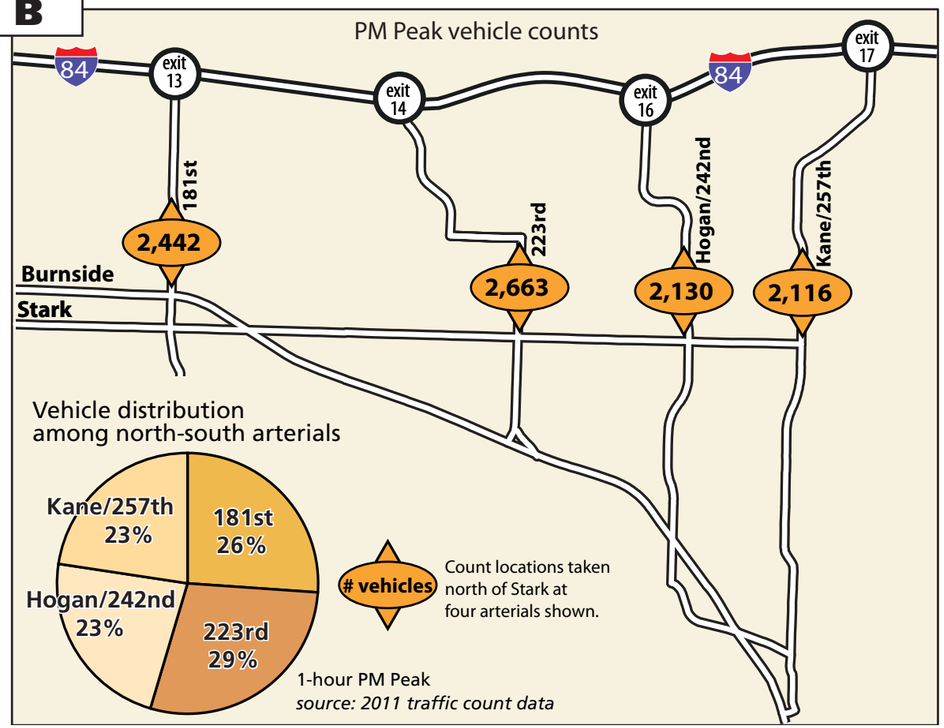
2011 vehicle counts show that intersections operate at or better than design standards.

By Metro regional performance standards, there were no intersection failures in 2011: Studied intersections function at or better than design capacity in the 1-hour PM peak. This typically is a condition where drivers don't have to wait more than one signal cycle to make any desired movement at the intersection. Six intersections are at or above 90% of capacity, indicating that intermittent congestion occurs, but they are operating within regional standards. These locations are shown as an orange circle on the map. Some of these intersections require capacity enhancements or other strategies designed to accommodate 2035 growth, but this will not be known until the 2035 traffic forecasts are available.

Current Vehicular Conditions (Continued)

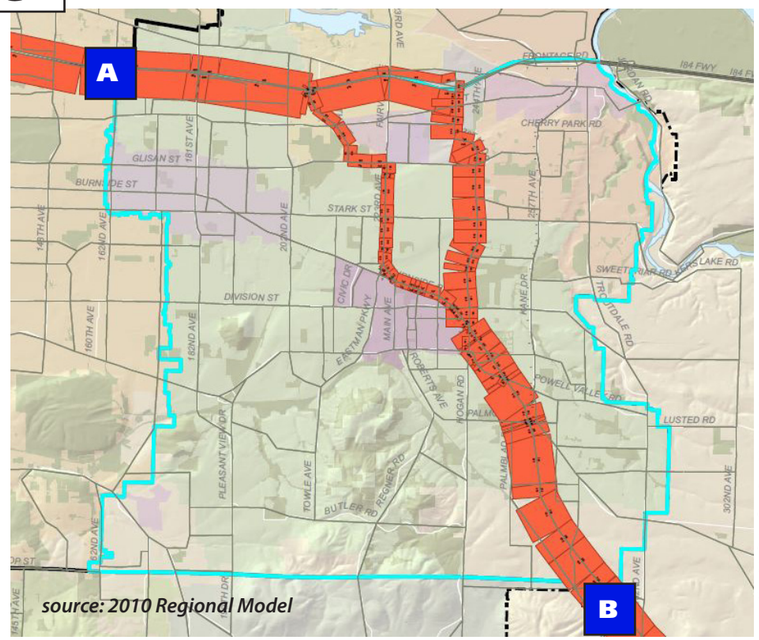
Map B

Traffic counts show even distribution of all vehicles across four north-south routes.



Map C

Through trips from I-84 to US 26 prefer taking Fairview Parkway and 238th interchanges.



This map shows the preferred routes for all vehicles traveling between I-84 (A) and US 26 (B) from the regional transportation model.

Key Findings (continued)

Key north/south arterials share the vehicle load

As shown in the schematic map to the left (Map B), actual count data from March 2011 indicates that each key north-south arterial is carrying a roughly similar proportion of the load during the one-hour PM peak period.

The data shown represents north- and south-bound traffic at a location just north of Stark (or, in the case of 181st, just north of Burnside). Stark was chosen because it is well into the Plan Area and is not being overwhelmed by I-84 traffic that does not continue farther into the Plan Area.

Of all vehicle trips in the 2010 2-hour PM peak, the percent of through trips on key north-south arterials is highest on 238th/242nd

- At a point north of Stark, the percent of through-trips on 238th/242nd is approximately 33% during the PM peak, according to the 2010 regional model.

- For the other arterials, the percentage of through-trips is smaller: PM peak traffic on 181st is about15% through-trips; on 223rd through-trips represent about 13%; and on 257th, about 18% of vehicles are through-trips.

More PM peak drivers traveling between I-84 and US 26 through the Plan Area prefer to use 238th/242nd

Map C shows how the regional travel demand model estimates driver route choice for all vehicle trips that travel between Point A (on I-84) and Point B (at US 26), or vice versa. (To put these trips in context, only about 6% of PM peak trips traveling on I-84 in either direction actually cut through the Plan Area to get to US 26.)

Route choice of through-trips for all vehicles:

- As indicated in Map C, of the 480 westbound vehicle trips on I-84 that are traveling through the Plan Area northbound from US 26, half choose 242nd/238th as the route, and half choose 223rd/Fairview Avenue to westbound Glisan, to northbound Fairview Parkway as the route.

- Of the 800 eastbound vehicle trips on I-84 that are traveling through the Plan Area southbound to US 26, only 16% choose the Fairview Parkway to eastbound Glisan, to southbound 223rd/Fairview Avenue as the route, and 84% choose NE 238th/242nd as the route.

Freight and Goods Movement

Problem Statement

The area needs safe, efficient freight connections.

Trucks need to move into, out of and through the Plan Area easily, and with the least impacts on other drivers, pedestrians, bicyclists and nearby homes, businesses and schools. To serve existing and future industrial and employment needs, the area needs one or more truck connectors between I-84 and the Columbia Cascades River District and US 26 and the Springwater area. Connections to Highway 212 are also important.

Though roadways serve a range of purposes and users, nearly all must accommodate trucks in some fashion.

Though trucks make up a small percentage of total trips in the Plan Area, their need to serve regional industrial sites, local businesses and homes, means that all major arterials have to work for trucks.

The existing freight route is not functioning well.

The National Highway System (NHS) freight route includes I-84 and US 26. The NHS route connecting those highways is the alignment from I-84, to 181st south, to Burnside Rd. east, to US 26. According to both truck counts and modeled data, many truck drivers choose alternatives to the current NHS freight route. These results confirm anecdotal information from drivers that the official truck route has safety and operational challenges, especially for longer trucks.

Where should the freight route go?

Compared to the designated freight route, both total trucks and through-truck trips are being attracted to other north-south roadways, depending on their entry or exit points. Given that 238th is closed to trucks over 40 feet, where do we want to route freight traffic into and through the Plan Area? How will we design roadways to handle trucks efficiently for both local access and through-movements, and still be safe and livable for all? How can we better communicate truck route information to truck drivers?

Key Findings

Trucks make up less than 3% of all daily trips within the EMCP Plan Area

- Low concentrations of daily trips made by trucks compared with all vehicles: 2010 model results (Map B) show that on an average weekday, a relatively low percentage of all vehicle trips in the Plan Area are trucks. The percent of average weekday trips that are trucks varies from 0.2% in District 8 to a high of 2.9% in District 2. Higher percentages occur in the northern influence area (7.0% in District 1). The southern influence areas (Districts 9 and 10) are 1.7% and 1.8% trucks, respectively.

2011 Traffic counts show small numbers of trucks during the PM Peak, with fairly balanced distribution on north-south arterials, at Stark.

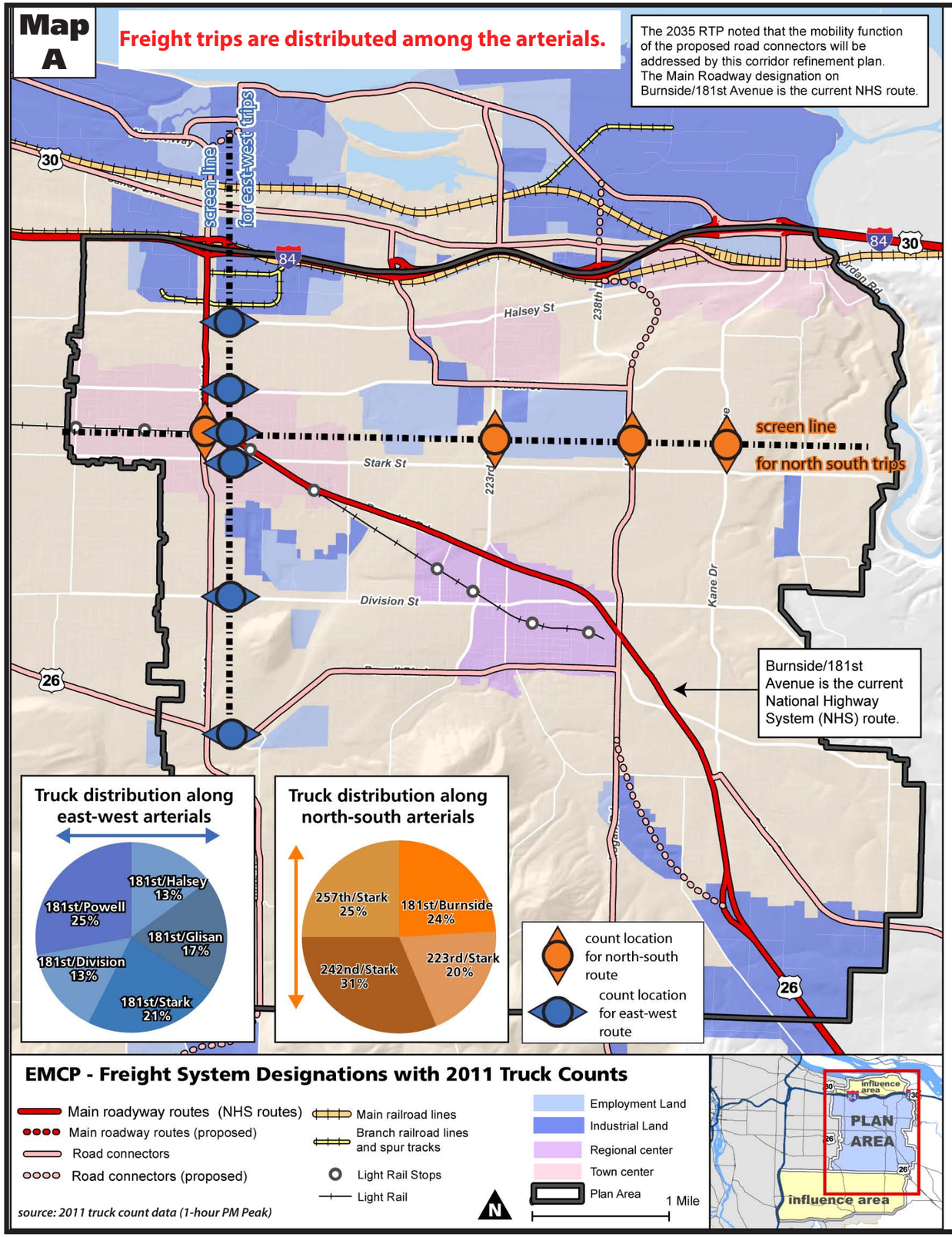
- 112 trucks use north-south routes.

- 150 trucks use east-west routes. Powell carries a quarter of that traffic, with Burnside and Glisan carrying roughly 20% each.

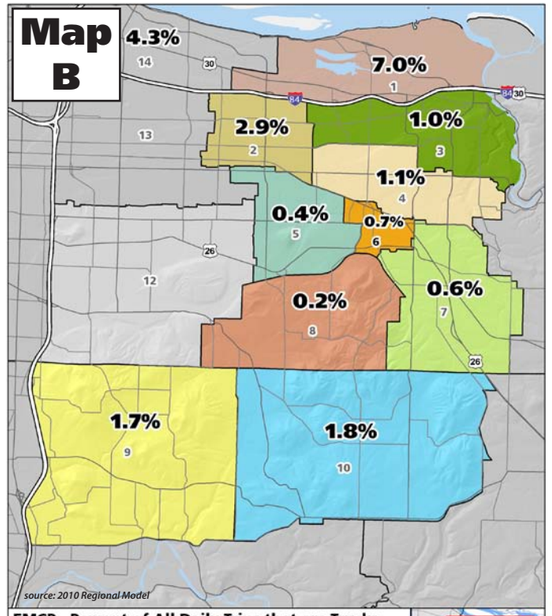
Map A

Freight trips are distributed among the arterials.

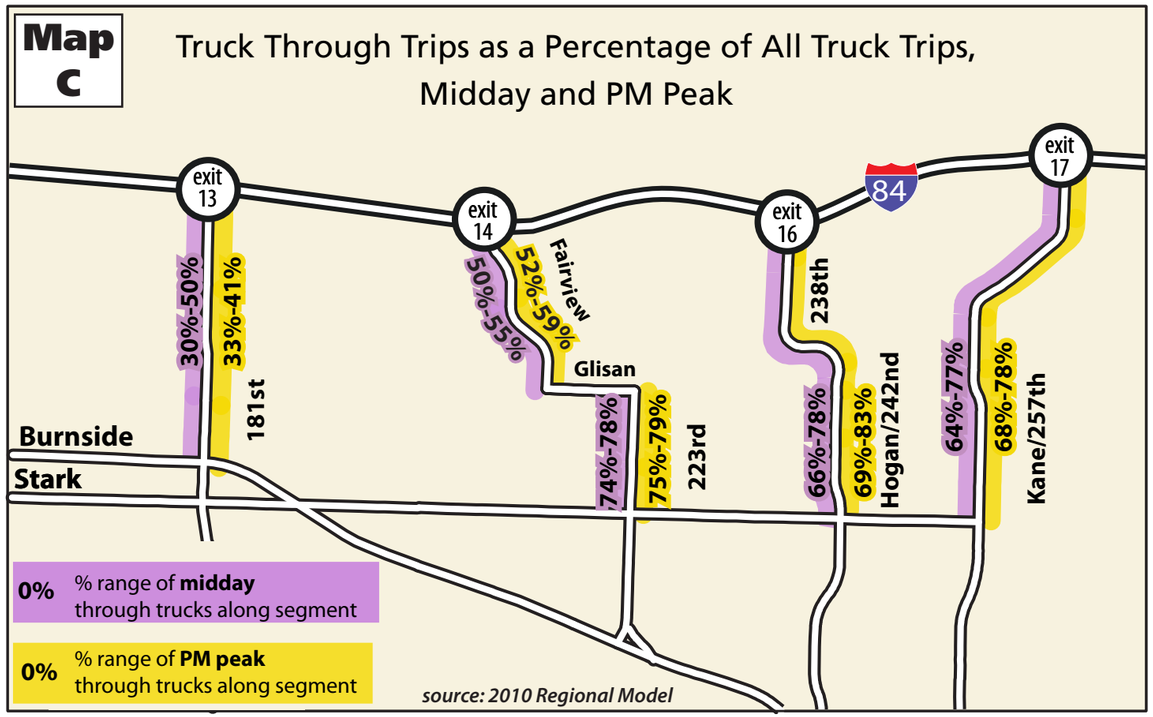
The 2035 RTP noted that the mobility function of the proposed road connectors will be addressed by this corridor refinement plan. The Main Roadway designation on Burnside/181st Avenue is the current NHS route.



Map B

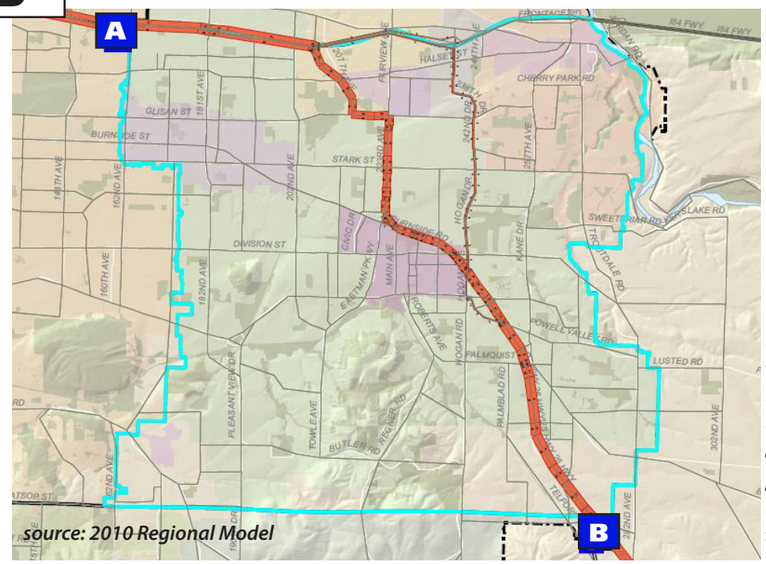


According to the transportation model, the designated freight route on 181st has the lowest percentage of truck through trips.



Map D

Truck through-trips from I-84 to US 26 prefer Fairview Parkway.



This map shows the preferred routes for truck trips traveling between I-84 (A) and US 26 (B) from the regional transportation model.

Freight and Goods Movement (Continued)

Key Findings (continued)

2010 model results show that truck through-trips do not prefer the designated freight route on 181st/Burnside (See Map C)

Map C shows the percentage of trucks that are through-trips, compared with all trucks at the same location. The map shows both PM peak and mid-day data. It is important to understand that the regional travel demand model analysis (for all vehicles as well as trucks) will assume that drivers choose the most time-efficient route between two points. In real life, of course, some drivers are unfamiliar with local bottlenecks, and daily traffic conditions change.

During the 1-hour mid-day (12-1 PM), which is more representative of the truck peak hour than is the traditional all-traffic PM peak (4-6 PM), the regional travel model shows:

- The highest volume of trucks (115 trucks in both directions, at Stark) is on the Fairview Parkway/223rd route.
- The highest percentage of through-trucks at mid-day is found on 223rd between Glisan and Stark.
- The percentage of through-trucks at 242nd and 257th are similar to each other; slightly less than 223rd.
- However, the percentage of through-trucks on 181st (the designated route) is only 30-50%, which is much lower than the other north-south routes.

Most truck through-trips connecting between I-84 and US 26 use Fairview Parkway/Glisan/223rd /Burnside route (See Map D)

- Truck-through trips move differently than all-vehicle through-trips. Due to the 40 foot truck length restriction on 238th/242nd between Halsey and Glisan, trucks cutting through the plan area between I-84 (west end of plan area) and US 26 have a different route preference than do vehicle trips as a whole making the same movements during the 2-hour PM peak.

- Fairview Parkway draws more through-truck trips than does the NHS freight route on 181st. As shown in MAP D, according to the travel demand model, with heavy trucks restricted on 238th/242nd from Halsey to Glisan, 75% or more of the truck trips that cut through the plan area in both directions between point "A" on I-84 and point "B" on US 26 choose Fairview Parkway/Glisan/223rd/Burnside as the preferred route.

Early comments from truckers themselves confirm problems with 181st/Burnside

In a small but relevant sample of seven interviewees who attended the June 18, 2011 Oregon Truck Rodeo, truck drivers ranked a list of issues. In order of importance, they ranked reliability, travel speed, safety and the cost of travel as important factors. There are numerous operational issues—especially safety (notably in Rockwood and near Mt. Hood Community College), conflict with MAX trains and riders, access to nurseries with larger equipment, and overall challenges related to turning radii and construction on the designated NHS route. The availability and location of truck parking is another problem drivers identified. There is a need for better information about truck routes for drivers unfamiliar with the area.

A panel of freight experts will be convened to provide additional insight and more detailed understanding of freight challenges, and to identify possible solutions.

Transit

Problem Statement

A sound transit network is critical in providing an alternative to auto transportation for both dependent and choice riders to access jobs, goods and critical services. The Plan Area transit network shown in the map at left provides relatively good access to transit service in the central section of the Plan Area, especially in Downtown Gresham and Rockwood areas, but offers less accessibility in the northern and southern sections.

Addressing transit system problems or deficiencies identified below could help increase ridership by getting people reliably to where they want to go, and providing a better experience for users:

- More frequent and longer-hours of service for north-south transit connections to high employment areas
- Last-mile access to employments areas
- Better access to Mt. Hood Community College
- Improved pedestrian and bicycle facilities at key transit stops

Key Findings

There is good east-west service, with headways ranging from 10-30 minutes at the peak, and 15-30 minutes off-peak.

The Blue Line has the highest route-level productivity (boarding rides per vehicle hour) of all transit lines in the TriMet system, and lines 4, 9, and 20 are among the ten most productive bus lines in the system.

There is relatively less frequent north-south service, with most bus lines running hourly.

North-south corridors currently lack strong anchor nodes for transit-oriented development and high employment areas. In addition, the growing residential community of Damascus, to the south, is not currently within the TriMet Transit District as the rest of the EMCP area is. Consequently, there is less transit demand on the north-south routes compared to east-west routes, which results in lower frequency routes. For more reliable and timely north-south service, the demand for transit needs to be more fully developed. In addition to the infrequent 82 and rush-hour only 87 lines on the 181st-182nd corridor, TriMet's Transit Investment Plan (TIP) identifies the 181st-182nd corridor as a possible Frequent Service upgrade at a later date.

2010 East Metro TriMet Bus Headways (in minutes)

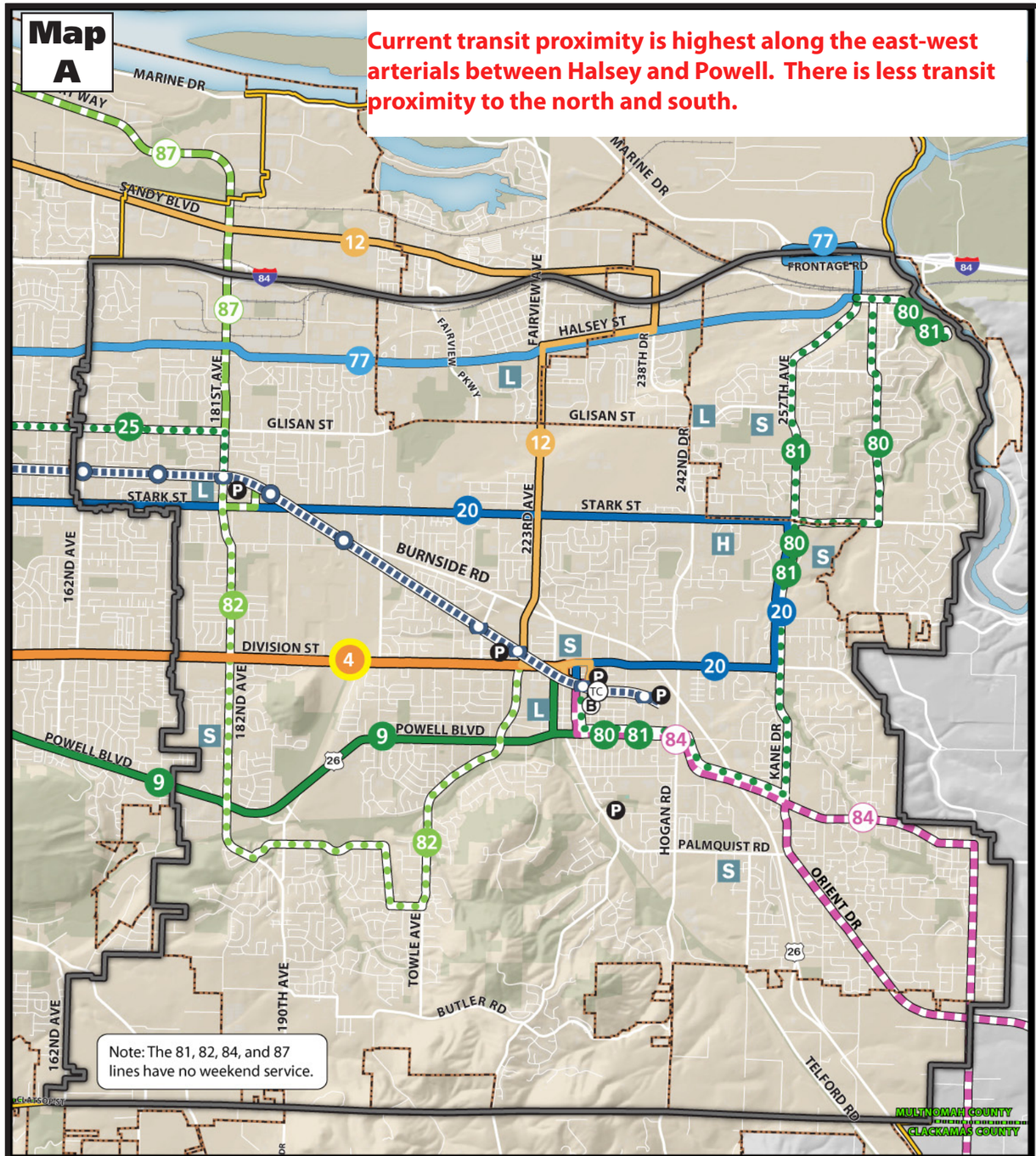
East-West Routes

Route	Peak Headway	Off-Peak Headway
Blue Line Max	12	15
4-Division	12	17
9-Powell	15	20/30
12-Sandy	30	35
20-Burnside/Stark	15	20
77-Broadway/Halsey	15	30

North-South Routes

Route	Peak Headway	Off-Peak Headway
25-Glisan/Rockwood*	70	70
80-Kane/Troutdale	60	60
81-Kane/257th	60	60
82-Eastman/182nd	60	60
84-Kelso/Boring	2 AM,2 PM runs	
87-Airport Way/181st	30	N/A

*provides north-south service in Plan Area, but travels east-west between Plan Area and Gateway



Some intersections in the plan area provide operational challenges for truck movement, and can conflict with pedestrians, bicyclists, and transit users.

The City of Gresham recently opened a 177-foot bridge over Powell Boulevard, completing a key link along the 3.29 mile Gresham Fairview Trail. (photo: City of Gresham)

Multnomah County and the City of Wood Village have been working to complete bicycle and pedestrian facilities along Arata Road. (photo: Google Earth)

Problem Statement

The bicycle system includes bicycle lanes, low volume streets, regional trails, and bicycle transit facilities. The existing pedestrian system is primarily comprised of on-street facilities that provide for safe walking opportunities. On-street facilities are supplemented with trails and separate sidewalk connections.

While **bike lanes and sidewalks exist on most collector and arterial streets**, key gaps in the bicycle and pedestrian network do exist. The maps on the following page show the **pedestrian and bicycle facilities** in the Plan Area. Areas with facility deficiencies include streets within town centers and commercial areas, such as Arata Road in Wood Village and Halsey Street within Troutdale. A future MAX Path between Rockwood and downtown Gresham would connect two important mixed use shopping areas. The plan area lacks a high-quality trail connection between the Springwater Trail and the Sandy River, a critical link in the 40-Mile Loop regional system.

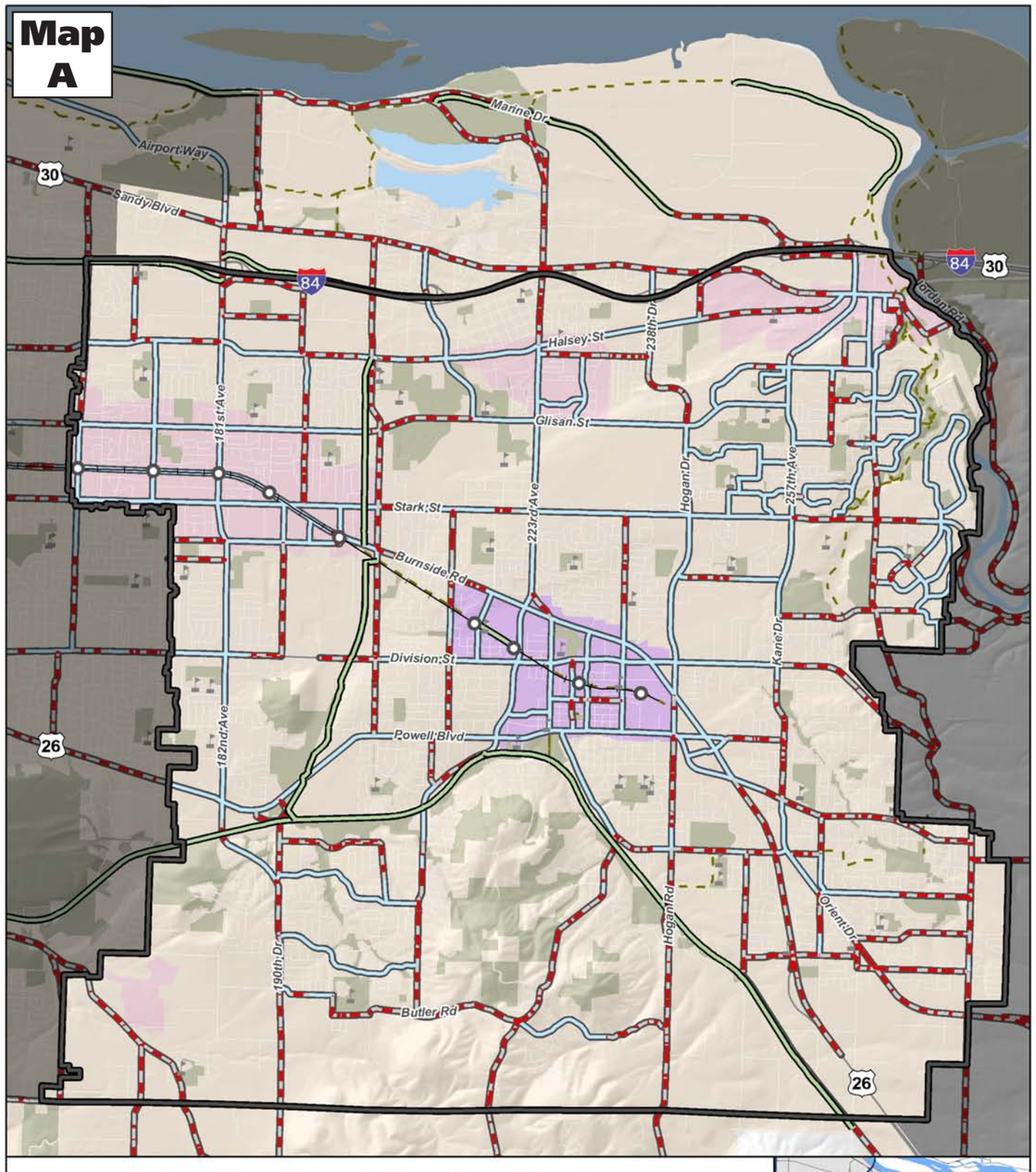
Safety is also an important concern for those walking and bicycling in the Plan Area. Pedestrian and bicycle activity thrive where the physical facilities are well connected, safe and attractive. There are **opportunities to improve safety** in the Plan Area. More information on pedestrian and bicycle safety can be found on page eleven.

Key Findings

A network of on-street and off-street bikeways and walkways integrated with transit make travel by foot and bike safe, fast and enjoyable. Gaps in the regional spine of the active transportation network (bike paths, trails, sidewalks) make longer pedestrian and bicycle trips more difficult and can inhibit use of important parks and natural areas, while key local and intermodal hub gaps reduce access to the network and in some cases to the transit system. Trails serve local residents as well as tourists; they provide recreation and healthy activity as well as commute alternatives.

- Due to scarce resources, and a historic lack of funding, it is critical to prioritize bicycle and pedestrian investments and link them to road infastructure improvements.
- The East Metro pedestrian network should provide safe, comfortable access to key destinations, including commercial areas, schools, transit stops, and places to live, work and play. Walking for short distances is an attractive option for most people when safe and convenient pedestrian facilities are available.
- Sidewalks exist on most of the collector and arterial streets; notable exceptions include portions of Halsey, Arata Road, 223rd, Stark, Division, and collectors south of Powell Boulevard. The map on the next page shows existing locations of sidewalk deficiencies on non-local streets.
- Bicycle facilities exist on most collector and arterial streets in the Plan Area. Notable exceptions include portions of Arata Road, 223rd, 238th, Stark, Division between the Gresham-Fairview Trail and Wallula Street, and some collector streets south of Powell Boulevard. The map on the next page shows locations of existing bicycle facilities.
- The plan area includes important regional trail facilities, including the Springwater Corridor Trail, the Gresham-Fairview Trail, and the 40-Mile Loop Trail. Future trails include the completion of the Gresham-Fairview Trail north of Halsey, the MAX Path between Rockwood and Downtown Gresham, the Reynolds Trail/40-Mile Loop connection to downtown Troutdale, and the 40 mile Loop Connection from Troutdale to Springwater Corridor.
- Analysis will assess the system gaps based on priority access to key destinations, street crossings, access to transit, and safety.

Map A



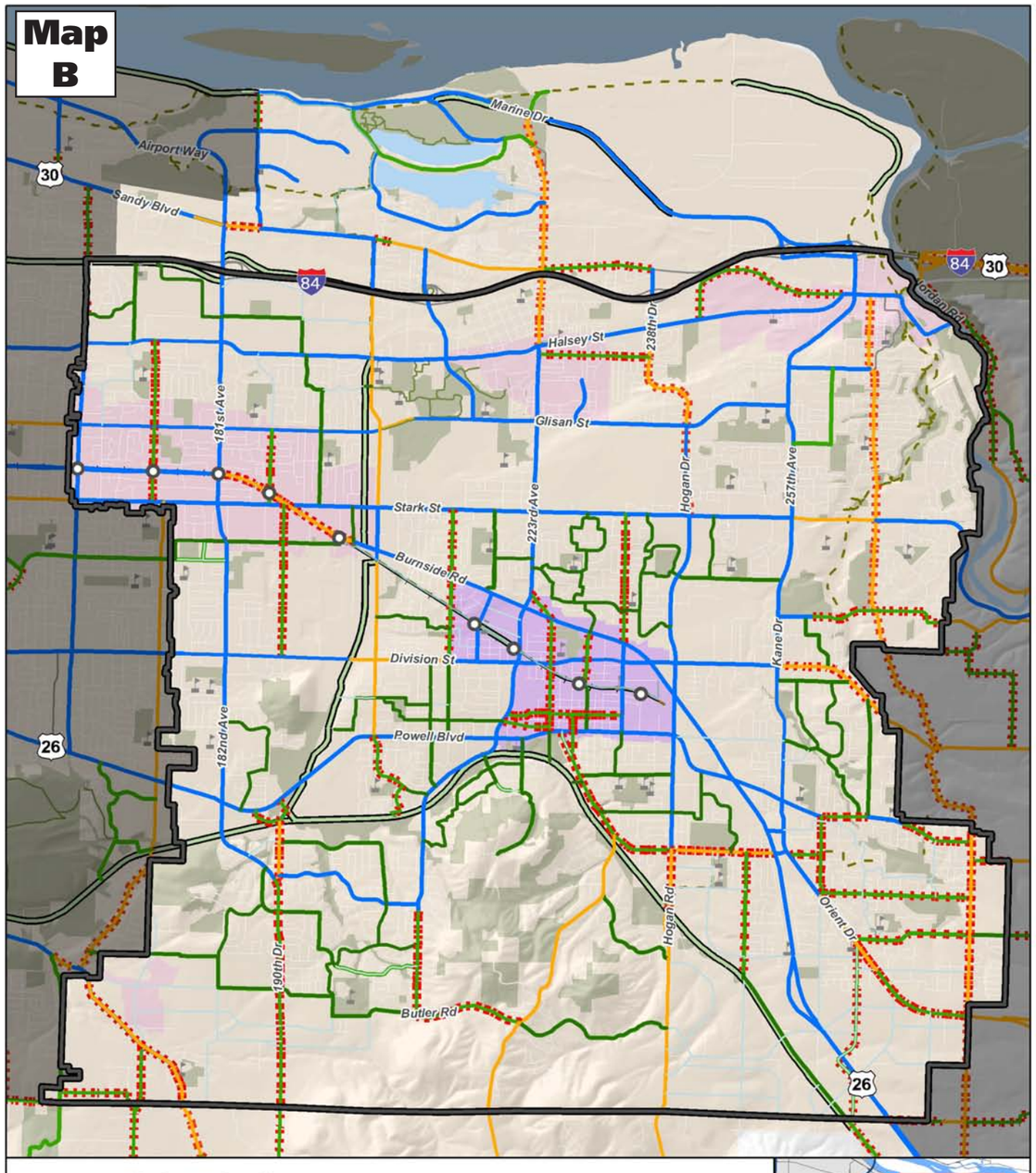
EMCP - Existing Sidewalks and Sidewalk Deficiencies

- Sidewalk
- Sidewalk deficient
- Regional multi-use path
- Planned Trail
- Schools
- Parks
- Regional center
- Town center
- Plan Area

Sidewalk definciency is defined as a street segment that does not have sidewalks substantially complete on both sides of the street.
Local streets are not included in this analysis.

N 0 1 Mile

Map B



EMCP - Existing Bicycle Routes

- Bike lane
- Low traffic through street
- Moderate traffic through street
- High traffic through street
- Caution area
- Regional multi-use path
- Planned Trail
- Plan Area
- Schools
- Parks
- Regional center
- Town center

N 0 1 Mile

System Utilization

Examples of System Management	
Multimodal Traffic Management • Traffic signal coordination • Transit signal priority treatment • Detection and countdown timers for bicycles and pedestrians	**Transportation Demand Management** • Ridesharing • Collaborative marketing (e.g., Drive Less Save more campaign) • Individualized marketing (e.g. SmartTrips residential outreach) • Transportation Management Associations (TMA), such as the Gresham TMA. • Employer outreach
Traffic Incident Management • Improve surveillance • Expand incident management teams and training	**Traveler Information** • Real-time traveler information for freeways and arterials • Enhance traveler information tools, including trip planning for transit, bike and walk trips.

What is TSMO?
Transportation System Management and Operations (TSMO) is a set of integrated transportation solutions intended to improve the performance of existing and new transportation infrastructure. Through a combination of transportation system management (TSM) and transportation demand management (TDM) systems, services and projects, TSMO addresses transportation goals such as mobility, reliability, safety and accessibility, which have traditionally been achieved via larger scale, expensive infrastructure investments.

Problem Statement

In a time of shrinking resources, it has become more important than ever to make efficient use of the existing transportation system. Below are key obstacles to achieving this efficiency:

- The Plan Area does not have much all-day frequent bus service; line 4-Divison and MAX blue line are the existing frequent service routes. Without frequent service to desirable places, people are either encouraged to drive, or are left with limited access to jobs, schools and other important destinations.

- The Plan Area has an abundance of free parking, which encourages driving.

- Some travel delay and congestion is due to suboptimal traffic management. FHWA recommends that signal timing be reviewed every three years. Signal timing needs to be assessed for corridors that have not been timed recently.

- East Metro has had mixed results with Transportation Management Associations (TMAs) that support transportation demand management. The Gresham TMA is expanding its service area beyond downtown to include employers in its industrial districts. However, the Troutdale TMA is no longer in operation.

Key Findings

Making the best use of the existing transportation system.

The Regional Transportation Plan (RTP) calls for maximizing system operations by implementing management strategies prior to building additional motor vehicle capacity. The RTP's Transportation System Management and Operations (TSMO) Plan provides cost-effective strategies to maintain mobility, improve access and safety, and support sustainable travel choices associated with regional and town center designations.

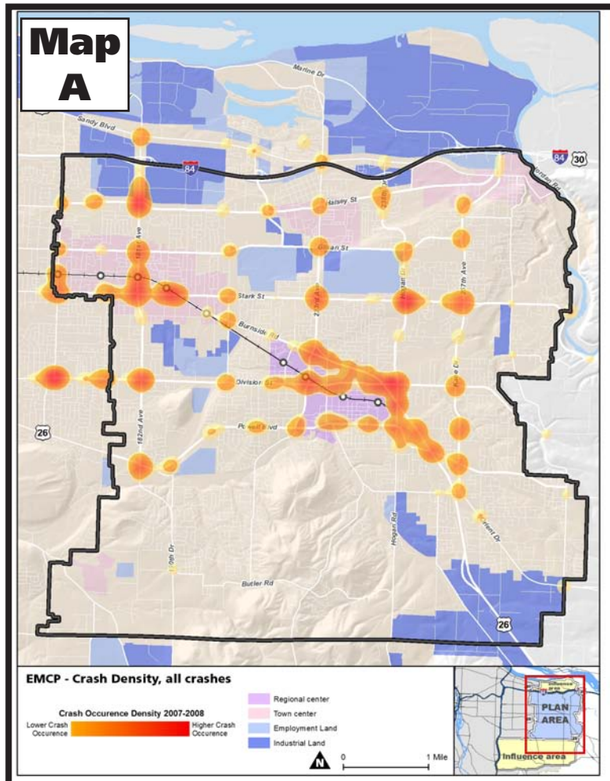
East Metro communities are investing in TSMO strategies to improve travel flow. Many corridors have been upgraded with new traffic management equipment and updated signal timing in the last few years. For example, sophisticated signal timing improvements were recently implemented on 181st.

- It is desirable to improve transit service by increasing the number of routes with frequent service and installing transit signal priority technology on frequent bus routes.

- In areas where parking demand is at 85% or more of capacity, there is opportunity to institute parking management strategies to promote alternatives to driving alone.

Safety

Map A



All Crashes - by Full Corridor

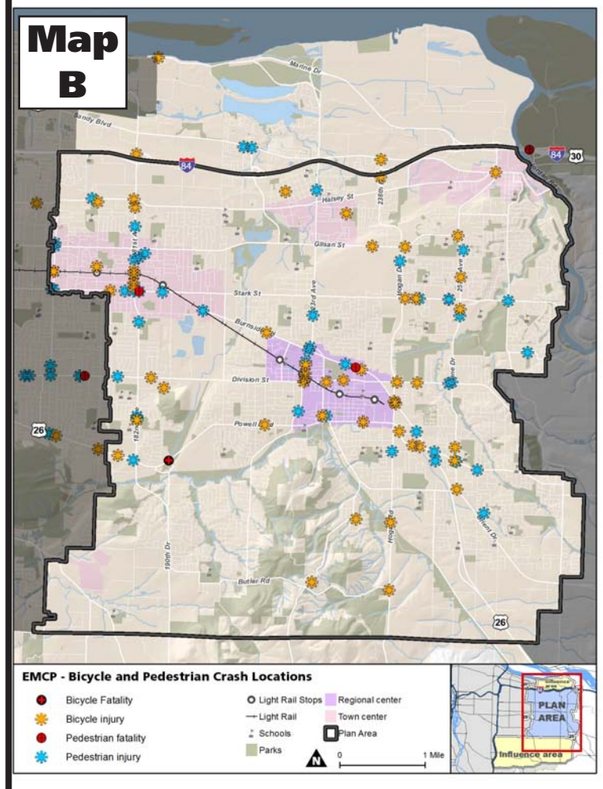
2007 - 2008 - 2009 Data

Rank	Corridor	Limits		Miles	SPIS-based Relative Score
1	Division	148th	257th	5.38	521
2	182nd/181st	I-84	Powell	3.49	487
3	238th/242nd/Hogan	I-84	Powell	3.09	449
4	Stark	181st	257th	3.82	395
5	Powell	148th	257th	5.87	348
6	Burnside	181st	257th	4.68	342
7	257th/Kane	I-84	Palmquist	4.19	258
8	Glisan	181st	257th	3.84	250
9	223rd/Eastman	I-84	Powell	3.13	227
10	Halsey	148th	257th	5.86	176
11	207th	I-84	Glisan	0.86	35

What is the Safety Prioirity Index System (SPIS)?
Initial safety analysis was conducted using methods from the ODOT Safety Priority Index System (SPIS). SPIS scores are developed based upon crash frequency, severity, and rate. Corridors in the table are ranked according to their SPIS score.

The score reflects crash points per mile of roadway length. Crash points are assigned an 100 points for a fatal or severe injury, and 10 points for other injury.

Map B



Ped/Bike Crashes - by Full Corridor

2007 - 2008 - 2009 Data

Rank	Corridor	Limits		Miles	Ped-Bike Score
1	Division	148th	257th	5.38	201
2	182nd/181st	I-84	Powell	3.49	138
3	Stark	181st	257th	3.82	115
4	Powell	148th	257th	5.87	106
5	257th/Kane	I-84	Palmquist	4.19	88
6	Burnside	181st	257th	4.68	88
7	238th/242nd/Hogan	I-84	Powell	3.09	65
8	Glisan	181st	257th	3.84	29
9	Halsey	148th	257th	5.86	20
10	223rd/Eastman	I-84	Powell	3.13	16
11	207th	I-84	Glisan	0.86	0

What is the Safety Prioirity Index System (SPIS)?
Initial safety analysis was conducted using methods from the ODOT Safety Priority Index System (SPIS). SPIS scores are developed based upon crash frequency, severity, and rate. Corridors in the table are ranked according to their SPIS score.

The score reflects crash points per mile of roadway length. Crash points are assigned an 100 points for a fatal or severe injury, and 10 points for other injury.

Problem Statement

Elected officials, members of the public, school representatives and truck drivers all express concern about safety within the Plan Area. Passenger/freight conflicts, as well as pedestrian/vehicle conflicts rank high, along with concerns for the safety of children traveling to school, or playing near homes, parks or school facilities.

There are opportunities to improve roadway safety in the Plan Area, but specific strategies must be designed to respond to fully understood problems. The causes and potential solutions for safety problems will be an important focus of the study.

Key Findings

Initial review of safety data (illustrated in the maps and tables to the left) points to areas for closer analysis and attention.

Noteworthy traffic safety hotspots for "all crashes" include:

- SE Division from SE 182nd to SE 257th/Kane Drive
- NE 181st in Rockwood from SE Stark to NE Glisan
- NE 181st north of Rockwood from Glisan to I-84
- 238th/Hogan from Division to Powell

Areas of concentrated bicycle and pedestrian crashes in the analysis include:

- 181st in Rockwood, along Stark and Burnside
- 257th adjacent to Cherry Park Rd in Troutdale
- Downtown Gresham along Eastman and Burnside
- US 26 adjacent to the Powell/Burnside intersection

Households, Jobs, and Demographics

Problem Statement

The East Metro Plan Area has abundant natural and human resources that will continue to attract people to make their home here. However, the new regional population and jobs forecast for the year 2035 shows that although there will be increases in housing and employment, these will be different than previous forecasts. Specifically, due to the lengthy, severe recession, the new forecast has significantly fewer jobs than the previous forecast.

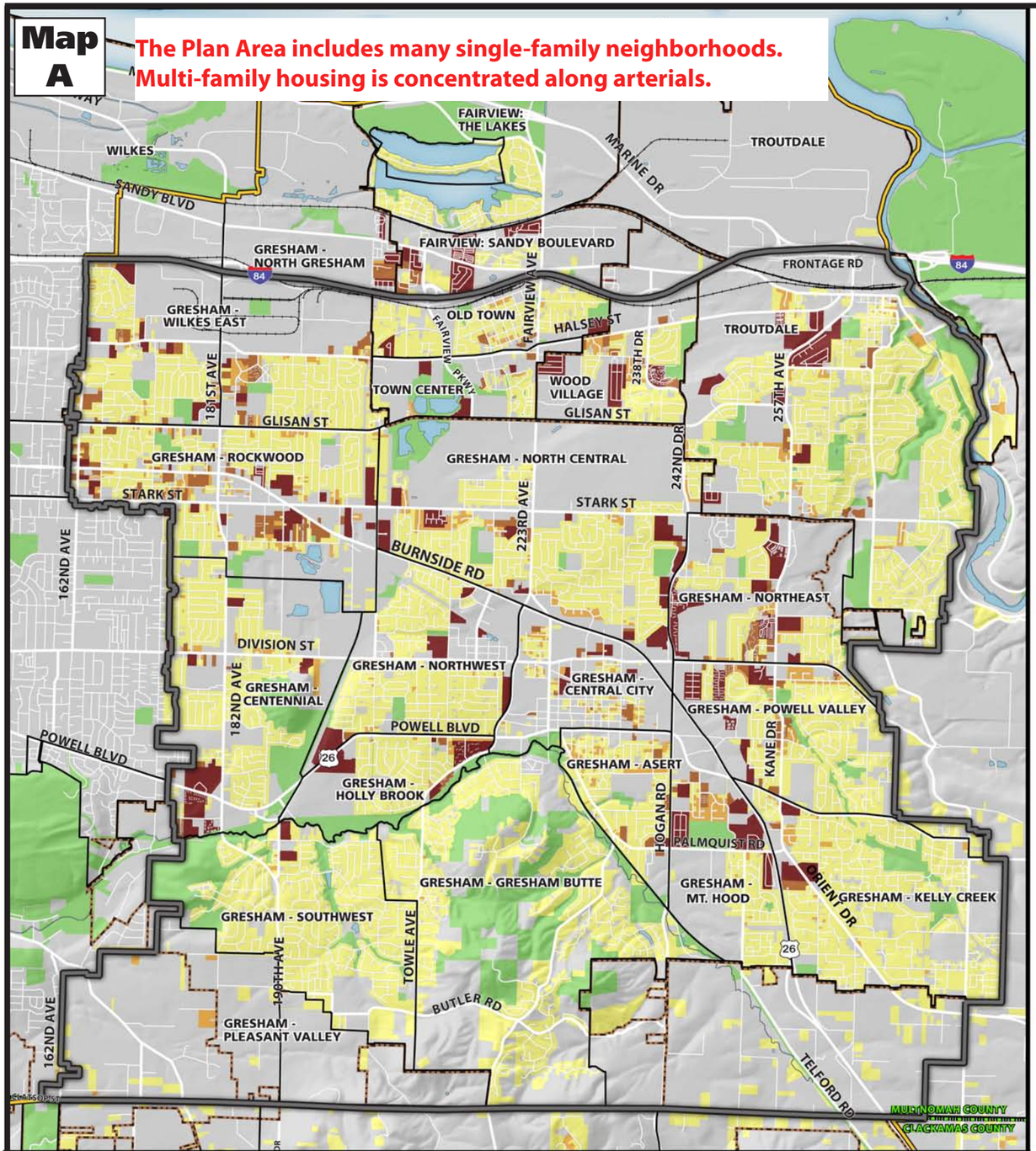
With fewer jobs forecast over the next 25 years than previously forecasted, it is more critical than ever to target scarce funds effectively to support the health of residents, the livability of communities and the vitality of businesses.

In addition, the Plan Area has concentrations of poverty and ethnicity that are greater than the regional average.

The EMCP investment strategy will evaluate the benefits and burdens of proposed projects based in part on demographics and geographic distribution. The project will also assess how investments can provide access to opportunities – jobs, healthy food, education, health care, financial, commercial, recreation for the residents of East Metro. As such, it is important to understand key demographic trends in the study area.

Map A

The Plan Area includes many single-family neighborhoods. Multi-family housing is concentrated along arterials.

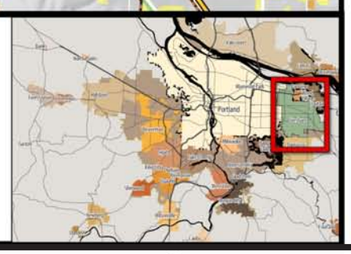


East Metro Connections Plan - Existing Households

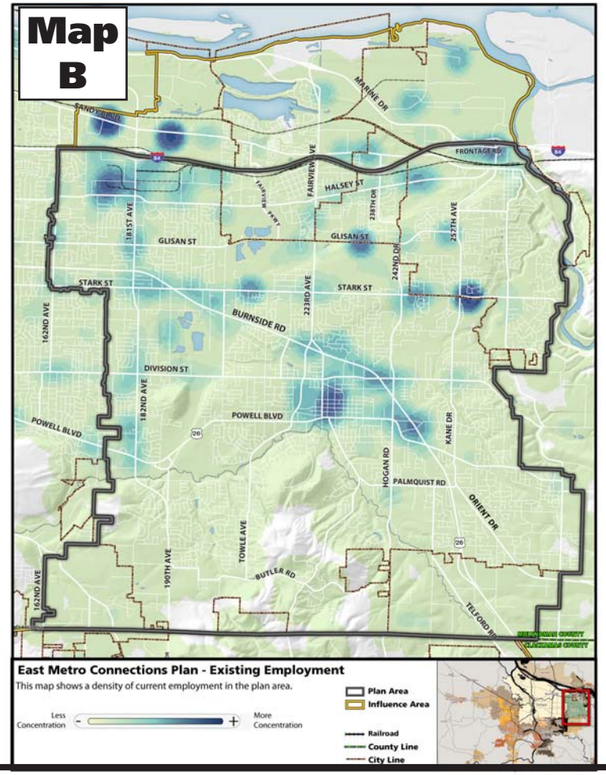
Taxlots on this map are symbolized by the number of housing units. Parcels that are grey either do not contain housing or are outside the plan or influence areas.

no housing	single family	between 2-10	between 11-50	greater than 50	park/ open space

Plan Area
Influence Area
Railroad
County Line
City Line



Map B



East Metro Connections Plan - Existing Employment

This map shows a density of current employment in the plan area.

Less Concentration — More Concentration

Plan Area
Influence Area
Railroad
County Line
City Line

Key Findings

- The Plan Area has concentrations of poverty and ethnicity that are greater than the regional average.
- Initial assessment has been to identify focus communities using census and other data defining areas with higher percentages of minority, low income, low English proficiency, elderly, and young. Focus communities include Rockwood and portions of Fairview, Wood Village, downtown Gresham, and SE Gresham along the US 26 Corridor.
- There are areas where more than 20% of the population is below the federal poverty level. This includes the Rockwood neighborhood and portions of downtown Gresham.
- The EMCP has concentrations of minorities, particularly in Rockwood, Fairview, Wood Village, portions of downtown Gresham, and SE Gresham along the US 26 Corridor.
- The EMCP has concentrations of Hispanic and Latino populations, and concentrations of Eastern European populations.
- The EMCP area has increasing numbers of youth. Most areas of the EMCP study area have higher percentages of youth than the region overall.

Economic Development

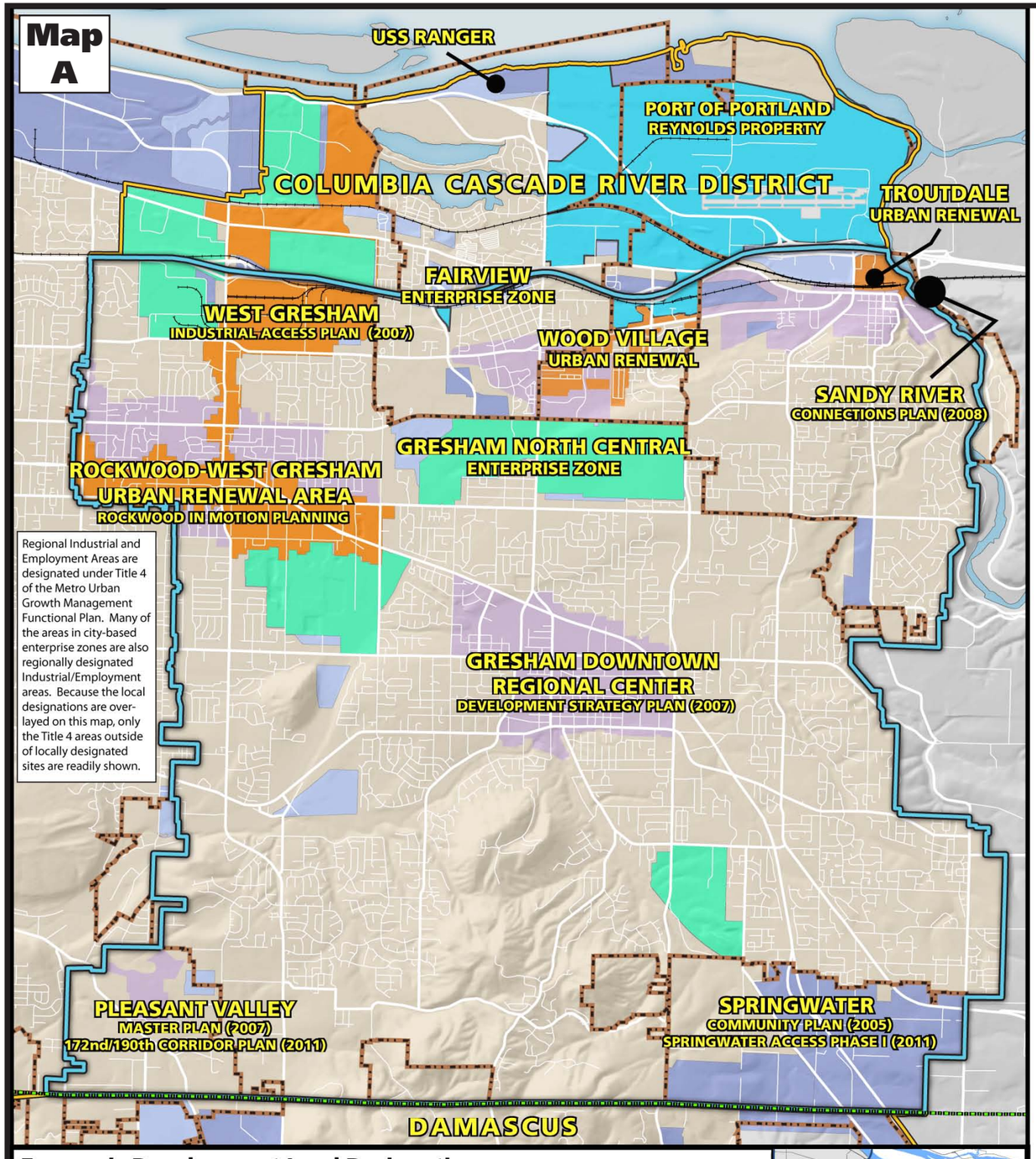
Problem Statement

A shared vision of center development, in-place plans and policies, access to I-84, available land and proximity to the Columbia River Gorge and Mount Hood recreational areas position the East Metro regional and town centers for success. However, low market values, lack of clear identity, perception of crime in some areas and lack of coordinated planning has prevented centers from achieving the kind of vertical mixed use development they seek.

The area also has a tremendous untapped residential and employment potential along corridors. However, most corridors suffer from a lack of focused planning efforts, pedestrian, bicycle and transit gaps, and safety issues. In addition, there are conflicts in some corridors between residential and freight/industrial uses.

The study area boasts a number of existing large industrial areas, several major employers, with good access to I-84 and airports. However, the need for localized traffic improvements, poor north-south transit access, existing development and lack of a unified recruitment strategy has prevented realization of employment goals. The Springwater area offers greenfield development potential but needs major infrastructure improvements, better connections to US 26 and I-84 and site assembly to be successful.

Map A



Regional Industrial and Employment Areas are designated under Title 4 of the Metro Urban Growth Management Functional Plan. Many of the areas in city-based enterprise zones are also regionally designated Industrial/Employment areas. Because the local designations are over-layed on this map, only the Title 4 areas outside of locally designated sites are readily shown.

Economic Development Land Designations

- Urban Renewal Area
- Gresham Enterprise Zones
- Troutdale/Fairview/Wood Village Enterprise Zones
- 2040 Concept center boundary
- Regional Industrial (Metro Title 4)
- Regional Employment (Metro Title 4)

The cities of Troutdale, Wood Village and Fairview have a combined 5 Enterprise Zones. Gresham has 6 Enterprise Zones. The cities of Troutdale, Wood Village, and Gresham have Urban Renewal Areas.

- Plan Area
- Influence Area
- County Line
- City Line
- Light Rail
- Railroad

The Columbia Cascade River District is an important employment area north of the plan area. Federal Express recently opened a facility on the former Reynolds Industrial site.

Main Street, Gresham regional center.

Economic Development (Continued)

Key Findings

Centers

Are meant to be the hubs of activity for individual communities, serving as regional and local destinations for housing and employment. Centers in the study area include Gresham regional center and five town centers (Fairview, Rockwood, Pleasant Valley, Troutdale and Wood Village).

- Centers have a shared goal of compact, mixed-use development that focuses on residential, commercial and office uses.
- Centers have unique community specific assets that enhance their long-term economic development goals, such as their proximity to the Gorge, Columbia River and Mt. Hood.
- There are several distressed communities (such as Rockwood) with a perception of crime; other centers lack a clear, well known identity.
- Market values are too low to support multi-story mixed use developments in most centers.
- New areas such as Pleasant Valley need infrastructure.

Corridors

Are streets that serve as key transportation routes for people and goods and provide substantial capacity for employment and housing. Study area corridors include 257th, 181st, 207-223rd, 238th/242nd, Powell, Division, Glisan, Halsey, Stark and Burnside.

- The area needs a safe and efficient freight route from US 26 to I-84, and must reduce freight-related livability impacts along some corridors.
- The study area corridors have an excess of zoned capacity and can accept additional growth.
- Employers have noted that there is a lack of transit service on the north-south routes, particularly those that serve the Columbia Cascade River District (CCRD). Bicycle and pedestrian gaps and safety concerns exist.
- Older, low value development and potential brownfields may inhibit redevelopment.

Employment Areas

Are areas that serve as the hubs for regional commerce and are of vital importance in the provision of jobs and enhanced economic development.

- West and North Gresham and the CCRD all have established Enterprise Zones, good access to I-84 and proximity to airports.
- These areas have existing employers and available, development-ready parcels with recent investments in the transportation network.
- Gresham's economic development strategy seeks traded sector jobs that focus on manufacturing, clean technologies and professional, scientific and technical services.
- The CCRD has Port of Portland support and a current focus on bringing the USS Ranger.
- Existing industrial areas contain some obsolete industrial buildings, potential brownfields and limited large sites.
- Springwater holds potential for greenfield development, but faces high infrastructure costs, poor freeway access and land assembly challenges.

Parks and Natural Resources

Problem statement

The East Metro Plan Area has popular parks, important regional trails, and an array of natural resources that provide habitat for fish and wildlife and refuge for humans. East Metro's parks, trails and natural areas contribute to the health, livability and economic attractiveness of the area. However, the following issues have been identified:

- Funding is the issue most often identified regarding parks. Funds for parks and trails, recreational opportunities and programs, operations and maintenance, and planning have eroded.
- There are gaps in the trail system, including the Gresham-Fairview Trail and the 40-Mile Loop, with needs for planning, implementation and maintenance
- Development in the plan area has resulted in the loss of fish and wildlife habitat and native vegetation and had a negative impact on water quality. New development in Springwater and Pleasant Valley could increase these losses and impacts.

Key Findings

Parks, trails and natural areas are fundamental to the livability of East Metro.

The Plan Area is home to a number of parks, trails and natural areas that are special to the local residents, and attract recreational tourism. Important natural features include the Columbia and Sandy Rivers, Johnson Creek, Beaver Creek Canyon and the East Buttes, and the area serves as the gateway to Mt. Hood National Forest and the Columbia River Gorge. These natural attractions can be leveraged to attract economic activity to the area. However, lack of funds to support parks and preserve natural areas threatens this opportunity.

A decline in quality parks and trails, recreational programs, and natural areas is a concern because:

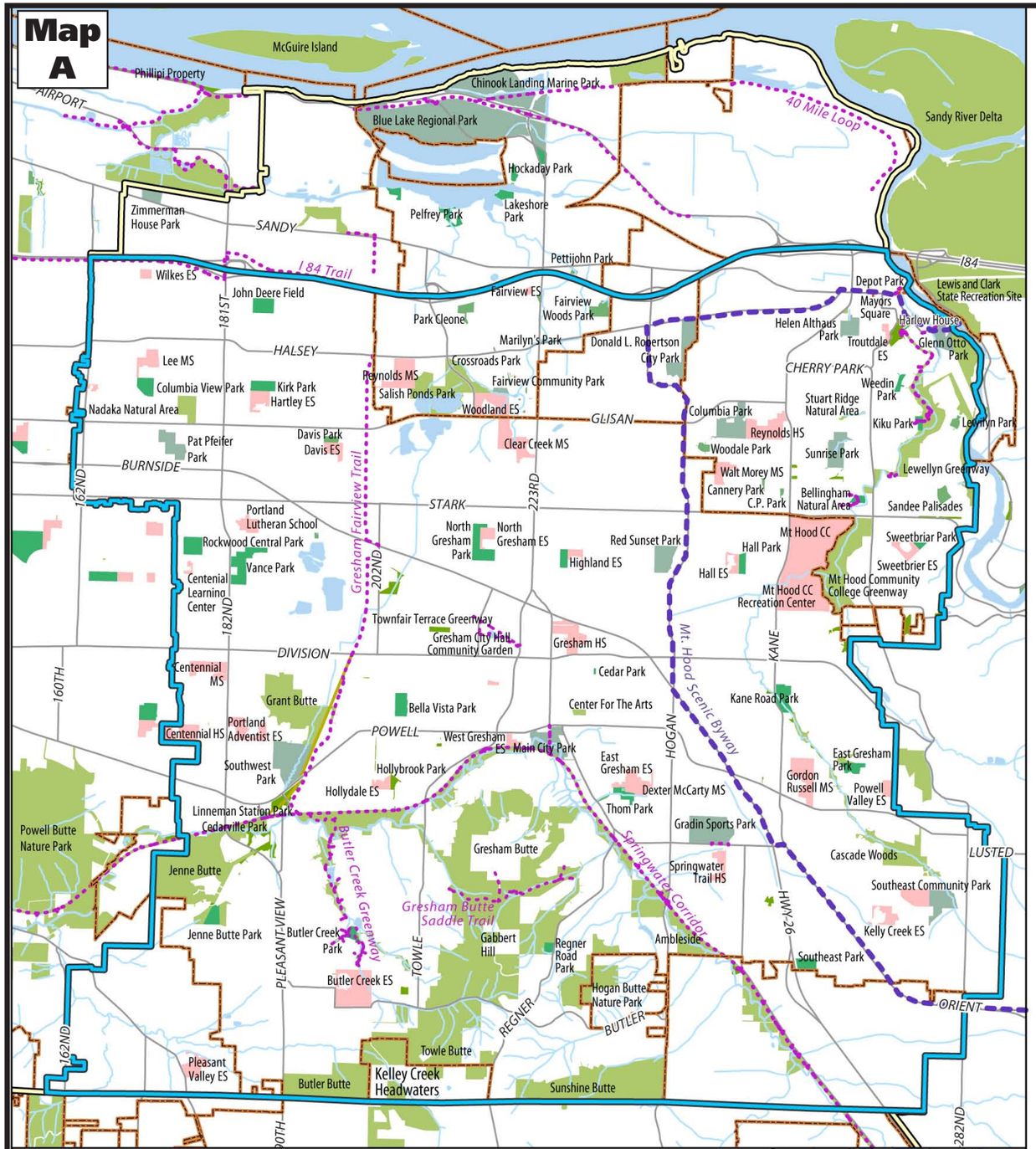
- Access to parks, recreational opportunities and natural areas helps to maintain a physically and emotionally healthy population
- It negatively affects the ability to attract tourism, businesses and other economic opportunities; it negatively affects community desirability and property values
- Trails provide active transportation access to parks and natural areas, as well as to schools, jobs and other locations.

Elements that contribute to lack of funding for parks are many, but include:

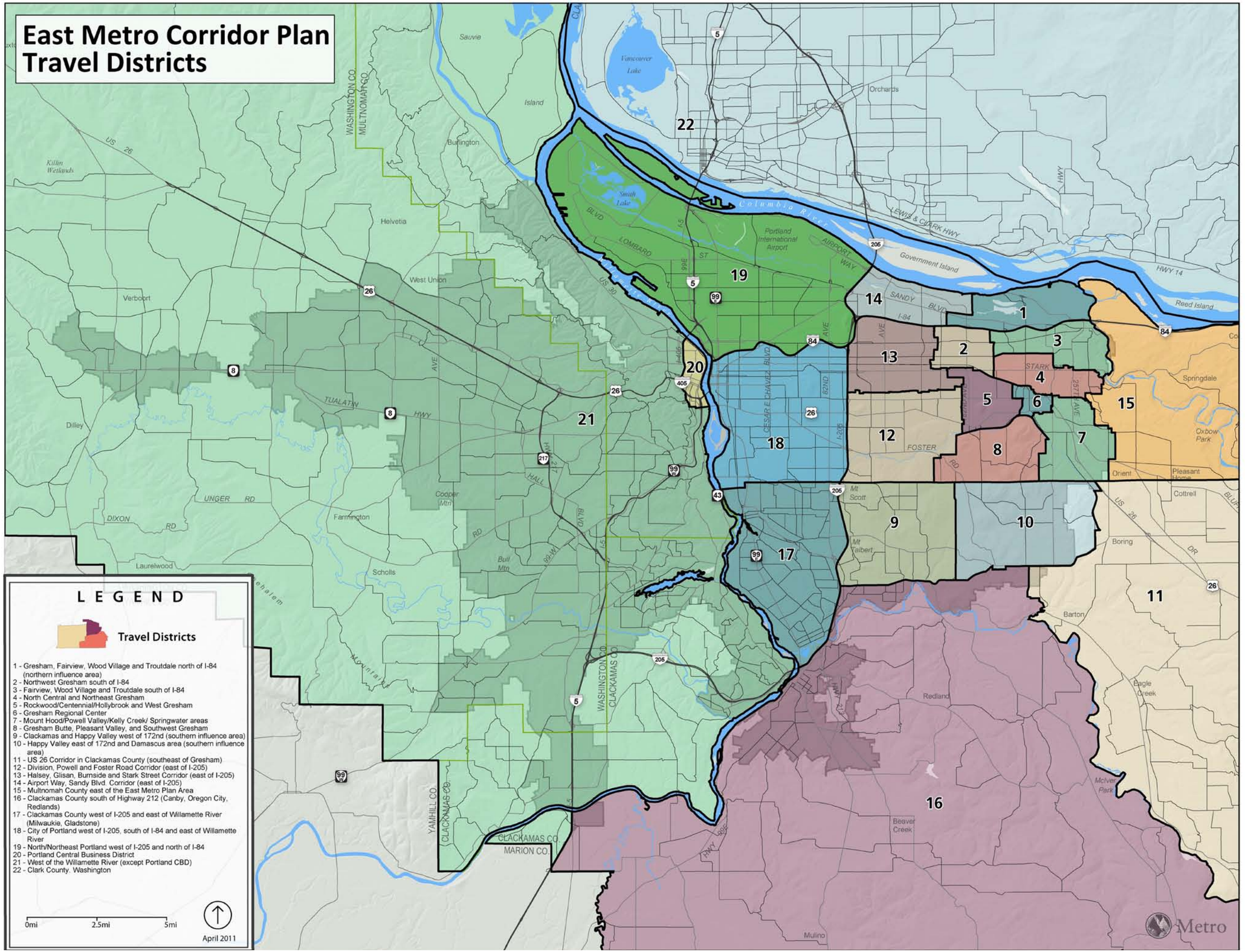
- No dedicated funding. System development charges, one main source of funding, are and have been diminishing.
- Lack of capacity to secure grant funding
- Many parks are aging and need renovation. Existing investments that deteriorate due to lack of maintenance require more resources in the long run.

Opportunities to address funding include developing a parks district or a parks foundations, partnering to secure grant funding and sharing resources. Opportunities to enhance parks, trails and natural areas through strategic investments include:

- Acquiring natural areas in the East Buttes, Springwater and Pleasant Valley
- Restoring natural areas and developing public facilities at Salish Ponds, Main City Park, East Gresham Park, Hogan Butte Nature Park and Kane Road Park
- Improving habitat along Johnson Creek
- Completing the Gresham-Fairview Trail, and improving Beaver Creek Greenway Trail and providing trails connecting downtown Troutdale with the Sandy River



East Metro Corridor Plan Travel Districts



LEGEND

Travel Districts

1 - Gresham, Fairview, Wood Village and Troutdale north of I-84 (northern influence area)
2 - Northwest Gresham south of I-84
3 - Fairview, Wood Village and Troutdale south of I-84
4 - North Central and Northeast Gresham
5 - Rockwood/Centennial/Hollybrook and West Gresham
6 - Gresham Regional Center
7 - Mount Hood/Powell Valley/Kelly Creek/ Springwater areas
8 - Gresham Butte, Pleasant Valley, and Southwest Gresham
9 - Clackamas and Happy Valley west of 172nd (southern influence area)
10 - Happy Valley east of 172nd and Damascus area (southern influence area)
11 - US 26 Corridor in Clackamas County (southeast of Gresham)
12 - Division, Powell and Foster Road Corridor (east of I-205)
13 - Halsey, Glisan, Burnside and Stark Street Corridor (east of I-205)
14 - Airport Way, Sandy Blvd. Corridor (east of I-205)
15 - Multnomah County east of the East Metro Plan Area
16 - Clackamas County south of Highway 212 (Canby, Oregon City, Redlands)
17 - Clackamas County west of I-205 and east of Willamette River (Milwaukie, Gladstone)
18 - City of Portland west of I-205, south of I-84 and east of Willamette River
19 - North/Northeast Portland west of I-205 and north of I-84
20 - Portland Central Business District
21 - West of the Willamette River (except Portland CBD)
22 - Clark County, Washington

0mi 2.5mi 5mi

April 2011

East Metro Connections Plan Relationship of Plan Goals to Topic Areas

Study Topic / Plan Goal	North/south connectivity between I-84 and US 26 & east/west connectivity and capacity	Make the best use of the existing transportation system.	Develop multiple solutions that encompass all transportation modes.	Foster economic vitality.	Distribute both benefits and burdens of growth	Enhance the livability and safety of East Metro communities. Ensure that East Metro is a place where people want to live, work and play.	Support the local land use vision of each community.	Enhance the natural environment.
Current vehicular conditions	**X**	**X**	x	x	**X**	x		x
Freight and goods movement	**X**	**X**	x	**X**	**X**	**X**	**X**	x
Transit	x	**X**	**X**	x	**X**	**X**	x	**X**
Active transportation (walking, biking, access to transit)	**X**	**X**	**X**	x	**X**	**X**	x	**X**
Transportation system utilization	x	**X**	x	x	x	x		x
Safety	x	x	x	x	**X**	**X**	x	
Households, jobs and demographics	x	x	**X**	**X**	**X**	**X**	**X**	**x**
Economic development	**X**	**X**	x	**X**	x	**X**	**X**	x
Parks and natural resources		x		x	**X**	**X**	**X**	**X**

X = major relationship x = minor relationship