

Slide 1: Presentation Title: 2016 CLRP Amendment, Performance Analysis of the Draft 2016 CLRP Amendment

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Slide 2: What is the Constrained Long-Range Plan (CLRP)?

The CLRP identifies regionally significant transportation projects and programs that are expected to be funded between now and 2040

- Over 500 projects, ranging from simple landscaping projects to billion-dollar highway and transit projects
- Full funding to keep the region's highway and transit systems in a state of good repair
- Programs that aim to make the transportation system in Metropolitan Washington better and more efficient

The Performance Analysis of the CLRP compares the region's transportation system between now and 2040.

For a complete listing of projects and programs in the CLRP, visit:

<http://www.mwcog.org/clrp/>

Slide 3: Population Growth

By 2040, the region is expected to grow by 23% to over 6.7 million people, an increase of 1.2 million people. The region's outer suburban jurisdictions are expected to see the highest rates of growth, while the inner suburban jurisdictions and regional core will continue to be home to the most population. The majority of new residents are expected to live in denser population centers throughout the region.

A map shows the 2016 population and the anticipated population growth in 2040, broken down by jurisdictions in the region.

Slide 4: Job Growth

By 2040, the regional jobs are expected to grow by 29% to over 4.1 million jobs. This is an increase of 940,000 new jobs. The fastest rates of job growth are expected in the outer jurisdictions of Virginia, while the inner suburban jurisdictions and regional core will continue to be home to the greater number of jobs. More new jobs will locate on the western side of the

region, and the majority of all new jobs are expected to be in denser population centers throughout the region.

A map shows the 2016 jobs and the anticipated job growth in 2040, broken down by jurisdictions in the region.

Slide 5: How does the CLRP advance the TPB's Regional Transportation Priorities Plan (RTPP)?

Slide 6: RTPP – Purpose

The Regional Transportation Priorities Plan aims to identify strategies with the greatest potential to respond to our most significant transportation challenges.

Slide 7: The CLRP addresses key strategies from the RTPP

- Maintenance
- Transit Improvements
- Targeted Congestion Relief
- Activity Centers

An image of the Regional Transportation Priorities Plan document cover.

Slide 8: CLRP Commitment to Maintenance

The 2014 CLRP financial plan included a full funding commitment for operations and state of good repair for transit and roads

Two charts display CLRP expenditures for 2015-2040 for highways and transit. Expansion has the smallest share of the pie for transit, followed by state of good repair and operations. Operations has the smallest share of the pie for highways, followed by expansion and state of good repair.

Two images show construction and maintenance work on transportation infrastructure.

Slide 9: Capacity on the existing transit system

The CLRP does include funding to expand existing capacity on MARC and VRE. The CLRP does not include full funding for Metro 2025 projects, including all 8-car trains during rush hour and core station improvements.

One photograph shows the interior of a new Metro rail car, and another photograph shows a VRE train and station.

Slide 10: Additional high capacity transit

System	Existing	CLRP
Metro Rail	119 mi	+12 mi
Light Rail/ Streetcars	2 mi	+28 mi
BRT	4 mi	+25 mi
Commuter Rail	167 mi	+11 mi
TOTAL	292 mi	+76 mi

A map shows the major transit projects from the CLRP which will be added to the existing transit network.

Slide 11: Transit: Some highlighted examples

Metrorail Expansion

- Silver Line Phase II

Light Rail

- Purple Line

Bus Rapid Transit

- Corridor Cities Transitway
- Route 1 BRT

Streetcars

- DC Streetcar to Georgetown

Commuter Rail

- VRE to Gainesville/ Haymarket

Four images show renderings and photographs of new transit projects in the region.

Slide 12: Congestion Relief – Roadway Projects

System	Existing (lane miles)	CLRP (additional lane miles)
Freeways / Expressways	3,572 mi	+467 mi
Arterials	13,362mi	+715 mi
TOTAL	16,934 mi	+1,182 mi

System	Existing (lane miles)	CLRP (additional lane miles)

Tolled Lane Miles	394 mi	+213 mi
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18% of new lane miles would be tolled under the CLRP in 2040

A map shows the major roadway projects from the CLRP which will be added to the existing roadway network.

Slide 13: Road projects: Some highlighted examples

New Road Capacity

- South Capital Bridge Reconstruction
- I-270/US-15 Corridor HOV
- I-66 Express Lanes – Inside and Outside the Beltway
- I-395 Express Lanes – Inside the Beltway
- Fairfax County Parkway HOV

Four images show renderings and photographs of new roadway projects in the region.

Slide 14: Analysis

Activity Center Connectivity by Transit People's Travel Mode Choice

- Regionally
- Sub-regionally

Roadway Congestion

Access to Jobs

Motor Vehicle Emissions

Slide 15: How will Activity Centers be better connected by transit?

Slide 16: More Activity Centers connected to high-capacity transit

In 2040, 15 new Activity Centers will be connected to by Metro, Streetcar, BRT, Light Rail, and Commuter Rail.

- 2016: 82 Activity Centers (59%)
- 2040: 97 Activity Centers (69%)

A map shows the Activity Centers that are currently connected by high-capacity transit, and the additional Activity Centers that will be connected in 2040.

Slide 17: How will people's travel choices change?

Slide 18: Growth in other modes will outpace single-driver trips

Driving will be the main way of getting around but other modes will grow at a faster pace.

A chart shows the number of all trips in 2016 and 2040 taken by single occupancy vehicle, high occupancy vehicle/carpool, transit and walk/bicycle. The chart also shows the growth in each type of trip between 2016 and 2040:

- Single occupancy vehicle trips will grow by 14%
- High occupancy vehicle/carpool trips will grow by 21%
- Walk/bicycle trips will grow by 47%
- Transit trips will grow by 32%

Slide 19: All Trips: Geographic Differences

A chart shows the breakdown by mode of trips by regional core, inner suburbs and outer suburbs, for 2016 and 2040. Regional core includes Washington DC, Alexandria City and Arlington County. Inner suburbs includes Montgomery County, Prince George's County, Fairfax County, Fairfax City and Falls Church. The outer suburbs includes the rest of the jurisdictions in the TPB Planning Area.

- The majority of all trips in the region will continue to be generated in the region's populous Inner Suburbs.
- Throughout all areas of the region, the share of driving alone trips is expected to decline and the share of walking and bicycling trips is expected to increase.
- In the outer suburbs, while the percentage of transit trips is expected to double by 2040 this type of trip will still account for the smallest number of trips.

Slide 20: How will roadway congestion change?

Slide 21: Congestion increases

Compared to today, more lanes will be congested in 2040 during the peak morning commute.

A chart shows that congested lane miles in the region will grow by 66% from 2016 to 2040.

- The number and share of lane-miles that are congested during peak periods is expected to increase substantially between now and 2040.
- Congested lanes will continue to make up a small, but growing, portion of the region's roadways, from 10% to 15%.

Slide 22: Roadway Congestion

2040 Major Highway Congestion (AM Peak)

Congestion on many sections of the region's major highways is expected to get worse. Some sections will see slight relief in congestion thanks to road improvements or changes in how people travel. This analysis is of non-HOT facilities only.

A map shows the change in congestion, highlighting segments of major roads which will have either increased or decreased congestion in 2040 compared to today.

Slide 23: How will access to jobs change?

Definition of access to jobs?

Number of jobs + Travel Time (by auto or transit) = Accessibility (number of jobs within 45 minute commute)

Slide 24: Access to Jobs: Transit access increases; Auto access slightly decreases

A chart shows that the average number of jobs accessible by automobile will decrease by 1% from 2016 to 2040. A chart shows that the average number of jobs accessible by transit will increase by 31% from 2016 to 2040.

- The average number of jobs accessible by auto will decrease.
- The average number of jobs accessible by transit will increase by 31 percent.
- The total number of jobs that are accessible by transit, however, will remain less than those accessible by automobile, because transit will continue to not reach all parts of the region.

Slide 25: Access to Jobs by Auto

Change in Access to Jobs by Automobile (2016-2040)

- Many areas, mainly on the eastern side of the region and the inner suburbs, will see declines in accessibility within a 45 minute commute.
- These declines are the result of two important factors:
 1. Anticipated increases in roadway congestion, which make it more difficult to reach other parts of the region by car within 45 minutes.
 2. More of the new jobs anticipated between now and 2040 are forecast to be located on the western side of the region, more than 45 minutes from those living on the eastern side.

A map shows the change in number of jobs accessible within 45 minutes by automobile.

Slide 26: Access to Jobs by Transit

Change in Access to Jobs by Transit (2016-2040)

- Most places with access to transit, will experience increases in the number of jobs that are accessible within a 45 minute commute.
- However, in 2040 transit will still not be a viable commute options for many people in the region due to lack of access to transit facilities and potentially long travel times.

A map shows the change in number of jobs accessible within 45 minutes by transit.

Slide 27: How will the CLRP affect emissions?

Slide 28: Mobile Source Emissions

Emissions of all criteria pollutants are expected to drop steadily between now and 2040.

- Emissions reductions are expected due to tougher federal fuel and vehicle efficiency standards.
- Changes in development patterns, investments in transit and other travel options, and improved operational efficiency of area roadways will also contribute to reductions in vehicle related emissions.

A chart shows the Precursor Nitrogen Oxide (NO_x) Emissions forecast from 2016 to 2040. A chart shows the Volatile Organic Compounds (VOC) Emissions forecast from 2016 to 2040.

Slide 29: Mobile Source Greenhouse Gas Emissions

Total and per capita CO₂e emissions are forecast to drop 24% and 45%, respectively, by 2040

- A significant amount of the greenhouse gas reductions are due to new tougher federal fuel efficiency standards. In addition changes in development patterns and investments in transit and other travel options will contribute to reductions.
- Currently no federal standards exist for greenhouse gas emissions. These emissions are not a required part of the transportation Air Quality Conformity Analysis.

A chart shows the carbon dioxide equivalent emissions and per capita emissions forecast change from 2005 to 2040.

Slide 30: Findings

Slide 31: The CLRP addresses key strategies from the RTPP

- Maintenance
- Transit Improvements
- Targeted Congestion Relief

- Activity Centers

An image of the Regional Transportation Priorities Plan document cover.

Slide 32: Findings: Impacts of the CLRP

Looking at relevant RTPP strategies:

Maintenance

- The region anticipates full funding to be available for maintenance

Transit Improvements

- Transit will be more widely available
 - 26% increase in new miles of high-capacity transit
- Transit will be much more extensively used
 - Transit ridership will increase by 32%
- Job accessibility by transit will increase
 - Region-wide, the average number of jobs accessible by transit will increase 31%
- The mode share for single driver trips will be reduced
 - SOV mode share (all trips) will decrease from 42% to 39%
- Additional capacity on the existing system:
 - Funded for commuter rail, but not for Metro 2025 projects

Slide 33: Findings: Impacts of the CLRP (continued)

Looking at relevant RTPP strategies:

Targeted Congestion Relief

- Congestion and delay will increase
 - Congested lane miles increase 66%
 - Vehicle hours of delay will increase 74%
- Toll lanes will provide alternatives to congested roads
 - Toll roads will increase by 213 miles (18% of all new lane miles will be tolled)

Activity Centers

- Most new growth will be in Activity Centers
 - 3 out of 4 new jobs will be in Activity Centers
- Most Activity Centers will have multimodal connections
 - 69% of Activity Centers will be connected by high-capacity transit

Slide 34: Contact information

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