

# Metro Sustainability Presentation

ACPAC

December 17, 2018



# Regional Sustainability Targets



By 2020, construct 5,000 **certified green buildings**

By 2020, **reduce regional greenhouse gas emissions** by 20% below 2005 levels



Beginning in 2014, the region's **air quality will be improving** and ambient concentrations will be reduced below federal standards (0.07)



The region will identify, conserve, and enhance a network of **protected open spaces, parks and green infrastructure** to provide ecological benefits, wildlife habitat, recreational opportunities, and scenic beauty

By 2050, 50% of **all sentinel watersheds will be in good or excellent condition**



By 2025, achieve 100% of **Chesapeake Bay Program's Water Quality Implementation Goals**

Beginning in 2012, the region will **maintain more than 497,500 acres of its area for agricultural uses**

Source: Region Forward Targets (updated April 2018). [www.mwcog.org/community/planning-areas/regional-planning/region-forward/targets/](http://www.mwcog.org/community/planning-areas/regional-planning/region-forward/targets/)

# National Capital Region Transportation Initiatives



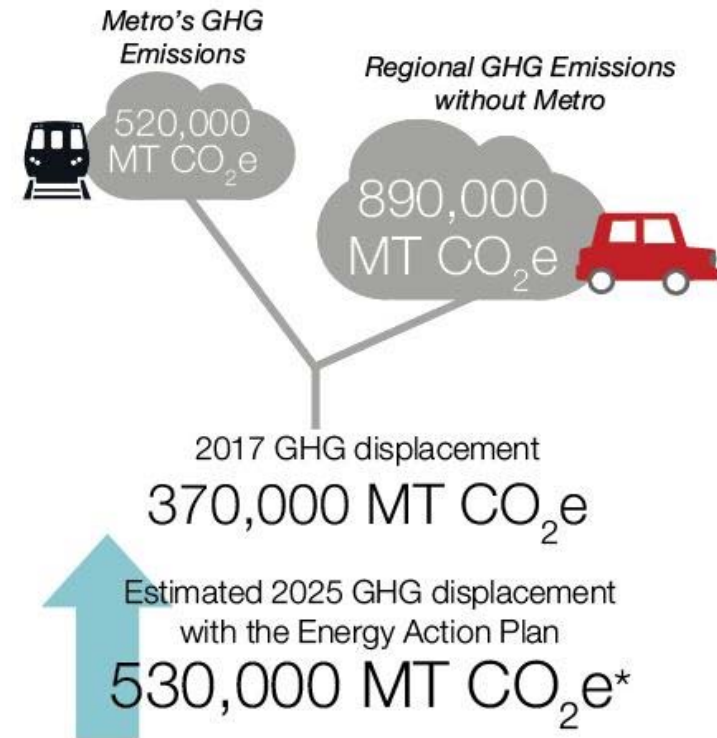
1. Bring jobs and housing closer together
2. Expand bus rapid transit regionwide
3. Move more people on Metrorail
4. Provide more telecommuting and other options for commuting
5. Expand express highway network
6. Improve walk and bike access to transit
7. Complete the National Capital Trail

Source: Visualize 2045, A long Range transportation Plan for the National Capital Region. [www.mwcog.org/assets/1/28/Visualize\\_2045\\_Plan\\_2018\\_10\\_23\\_No\\_Crops\\_Single.pdf](http://www.mwcog.org/assets/1/28/Visualize_2045_Plan_2018_10_23_No_Crops_Single.pdf)

# Metro's Impact

- Metrorail and Metrobus move over 900,000 weekday passenger trips, providing 73% of the region's total public transit miles
- Transit reduces the region's carbon footprint, spurs transit-oriented development, and promotes economic growth
- Metro accounts for regional GHG displacement of approximately 370,000 metric tons of CO<sub>2</sub>e (annually)

## Annual Greenhouse Gas Displacement



\* 2025 displacement value assumes only a change in Metro's emissions, all else equal



# METRO'S SUSTAINABILITY TARGETS

[www.wmata.com/sustainability](http://www.wmata.com/sustainability)

## REGIONAL TARGETS

- 25%** Increase in Ridership by 2025
  - ↑ Increase Transit, Bike and Walk Mode Share
  - ↑ Connect Communities
- 10%** Increase in Greenhouse Gas Displacement by 2025

## INTERNAL TARGETS

- 15%** Reduction in Energy Use Per Vehicle Mile by 2025
- 50%** Reduction in Greenhouse Gas Emissions Per Vehicle Mile by 2025
- 30%** Use of Renewable Electricity by 2025 (as financially feasible)
- 20%** Reduction in Water Use per Vehicle Mile by 2025
- 100%** On-Site Stormwater Management for Stations and Facilities
- 100%** Waste Diversion Rate

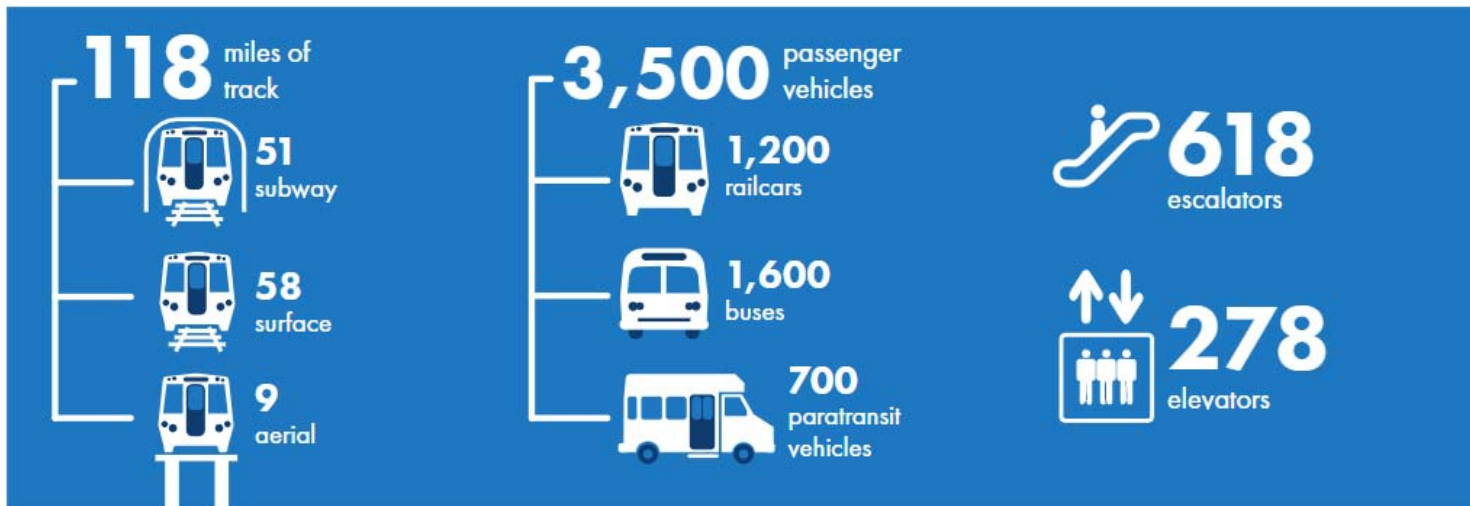
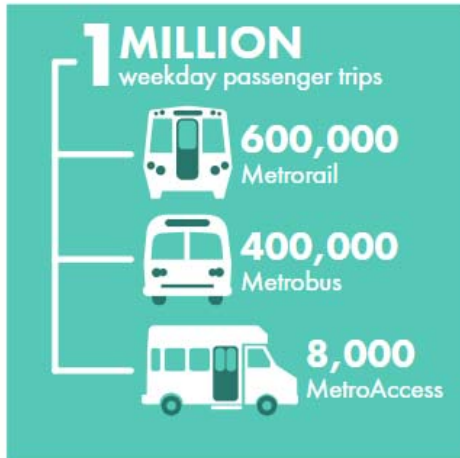
# Metro at a Glance



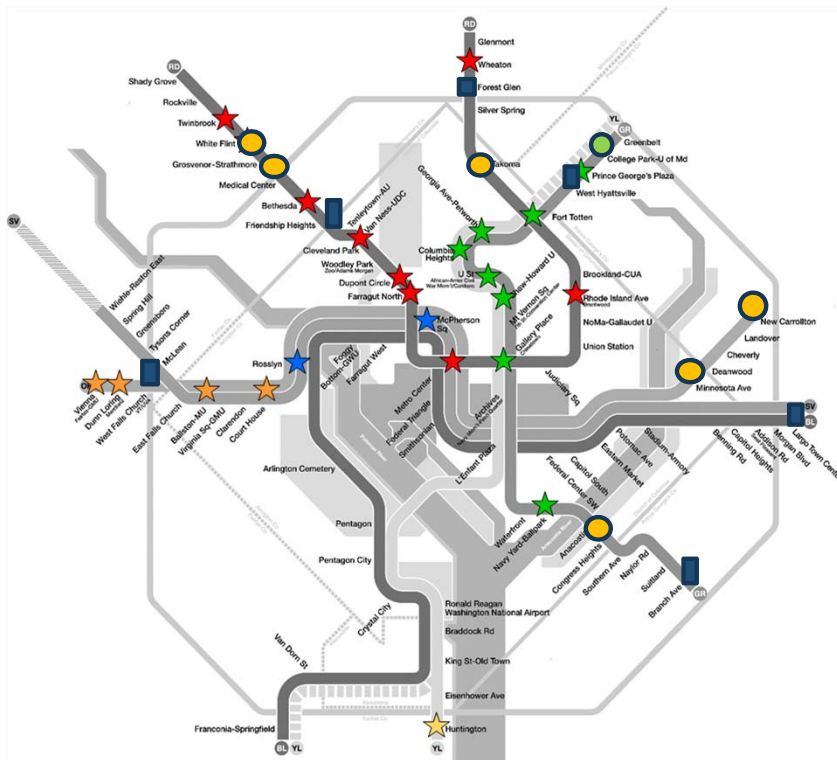
*Service area:*  
 1,500 square miles  
 3.9+ million population



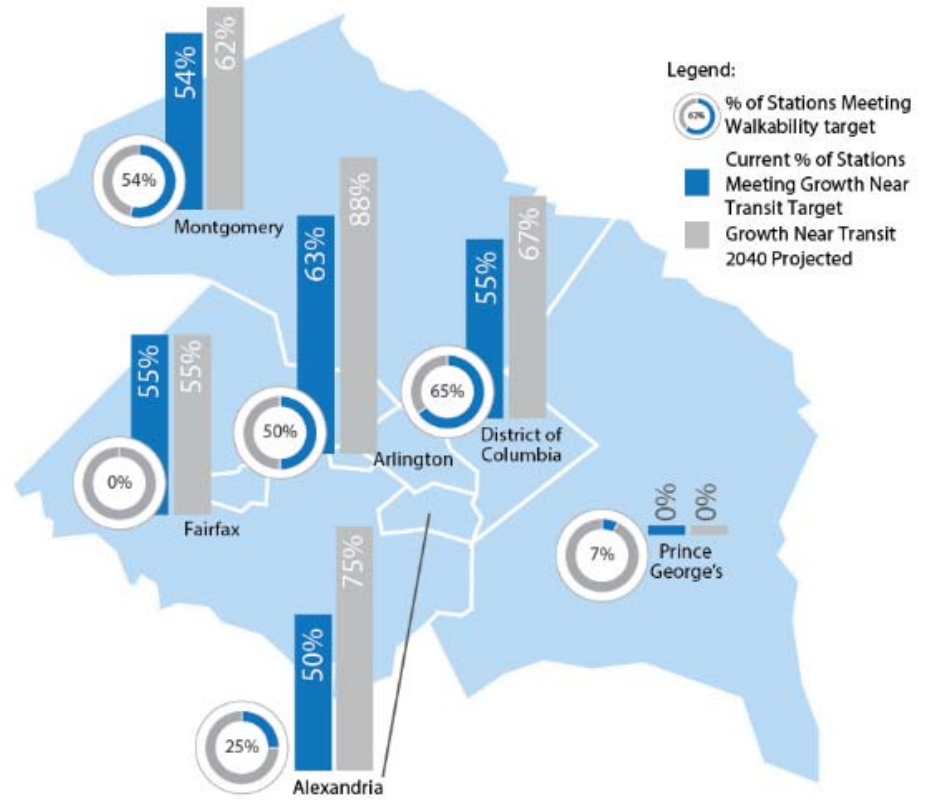
# Metro at a Glance



# Joint-Development



# Walkability

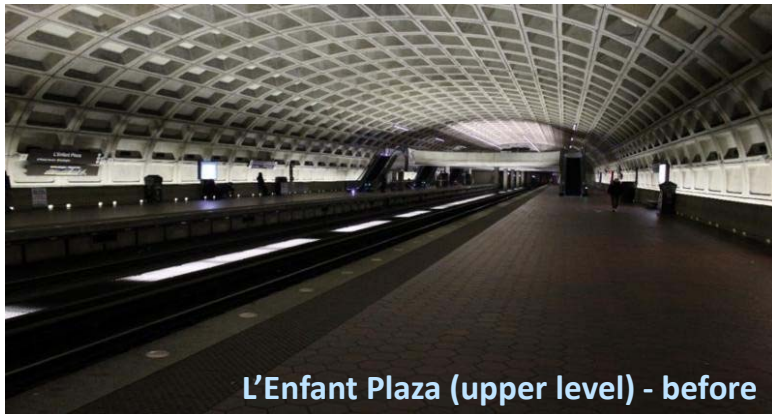




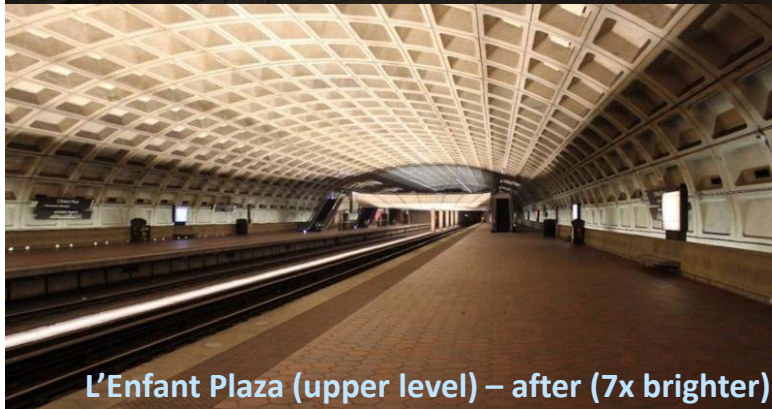
# Energy Action Plan



# Greener, Safer, More Reliable Ride



L'Enfant Plaza (upper level) - before



L'Enfant Plaza (upper level) – after (7x brighter)

*Metro is already moving!*

Active capital improvement program to upgrade all station lighting to energy efficient LEDs

- ☑ (15) stations have received new LED trackbed lighting this year - all 48 underground stations scheduled for upgrades over the next three years
- ☑ As a result, L'Enfant Plaza's upper level is now 7x times brighter
- ☑ New LED fixtures will produce average annual energy savings of 350,000 kWh per station

# Building for Efficiency

Construction and rehabilitation of support facilities

- Largo Water Treatment Plant – Net zero
- Andrews Federal Center Bus Garage - LEED Gold
- Cinder Bed Road Bus Garage
- Potomac Yard Station – LEED BD+C for Transit pilot



# Sustainability Lab



Funding and execution of innovative efficiency projects:

- Cooling tower water treatment to reduce chiller water consumption and energy use
- Average savings of \$10,000 per pilot location – all sites in 2018
- Mobile solar lighting towers at Metrorail stations