### REGION FORWARD COALITION

Draft: 01/09/12

### **Executive Summary**

Region Forward is a vision which serves to guide the Region Forward Coalition and the Metropolitan Washington Council of Governments. This vision is intended to coordinate all planning efforts throughout the region to benefit all residents.

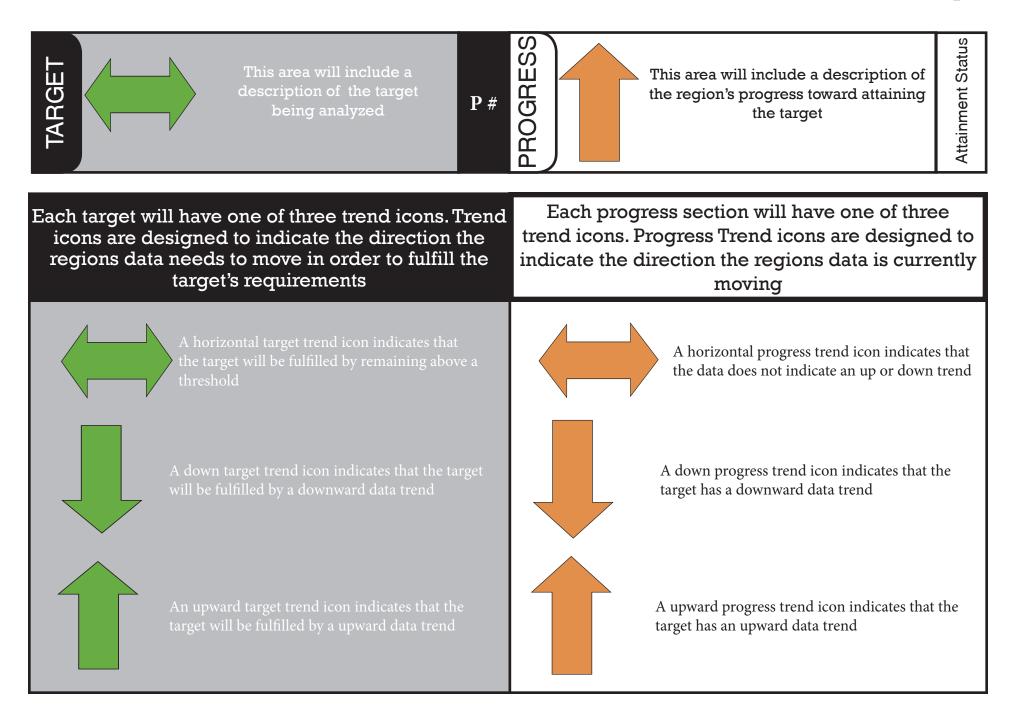
Region Forward was developed by the Greater Washington 2050 Coalition to guide the National Capital Region toward a prosperous, equitable, and sustainable future. They established nine groups of goals that address a wide variety of important regional challenges ranging from education to land use. Based on the nine goal areas 28 interdisciplinary targets were developed to guide the region toward fulfilling its vision.

The 28 targets are categorized as one of four primary impact areas. The primary impact areas are accessibility, sustainability, prosperity, and livability. These four categories were designed to aid implementation by associating each target with the policy area with the greatest potential impact.

The Region Forward Baseline is a tool designed to guide the implementation of the Region Forward vision. This report is a baseline that marks the region's starting point for each of the 28 targets. Progress reports based on this baseline will be produced every three to four years to empower regional decision makers with data.

The data sources used in for this baseline were established by the Greater Washington 2050 Coalition. Most of these sources are publicly available frequently updated sources. The data points in this report are designed to provide replaceable data over many years. Some data sources provide better data than others because the most accurate sources are not as likely to be available for future analysis. For example, several housing targets use forecasts instead of historical data because forecast are the only viable source of data. These compromises for replaceablity sacrifice some precision in favor of enabling periodic measurement.

### **Executive Summary**



Region Forward is a combination of innovative research and analysis designed to address the National Capital Region's fundamental challenges that inhibit equity, prosperity, and sustainability. This initiative uses farsighted public policy and measurable accountability targets to reach these targets. The targets are designed to cut across policy areas in an effort to encourage inter disciplinary partnerships. Interdisciplinary policy solutions have the potential of producing larger impacts than a piecemeal approach because solutions can both create new opportunity while removing old stumbling blocks.

accord and

This cross sectional policy method inspired the structure of region forward and this Baseline Report. Both documents use a two part system for grouping targets. The primary grouping is by one of four policy areas the secondary grouping measures nine interdisciplinary goals. A trends section will proceed each of the four primary policy sections providing snapshots of progress within each policy area.

The following matrix is designed to compare each of the nine interdisciplinary goals. Analyzing gaol fulfillment will help guide the coalition's implementation efforts.



Beginning in 2012, capture 75% of the square footage of new commercial construction and 50% of new households in Regional Activity Centers

Reduce daily vehicle miles traveled per capita

The region's transportation system will give priority to management, performance, maintenance, and safety of all transportation modes and facilities

Transportation investments will link Regional Activity Centers

Increase the rate of construction of bike and pedestrian facilities from the Transportation Board's Plan

By 2020, the housing and transportation costs in Regional Activity Centers will not exceed 45 percent of area median income

Beginning in 2012, at least 80 percent of new or preserved affordable units will be located in Regional Activity Centers

Increase the share of walk, bike, a transit trips

The majority of the Healthy People Goals are met by greater than half of the region's population

By 2020, all new residential and commercial buildings will be built using sustainable design practices equivalent to LEED Silver Standard

By 2020, reduce regional green house emissions by 20% below 2005 levels. By 2050, reduce emissions by 80% below 2005 levels

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

The region will identify, conserve and enhance a network of protected open spaces, parks, and green infrastructure

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 450,000 acres of agricultural land in farms

Annual rate of growth in median wages will exceed the rate of inflation

Sustain an annual 1 to 3% increase in the number of new jobs

Sustain an annual 2-4% growth rate in gross regional product for the National Capital Region

Improve access to vocational training and education options through out the region

Increase the rate of students graduating from high school to 90%

By 2020, the percent of population over 25 with a bachelor's degree is 45% or higher, and the percent with a professional or advanced degree is 20% or higher

Beginning in 2012, the region will dedicate 15% of all new housing unites to be affordable for households earning less than 80% of regional median income

Beginning in 2012, ensure 10% of the region's housing stock is affordable to households earning less than 80% of the regional median income

Reduce the number of pedestrian and bicycle fatalities across the region

Reduce the number of violent and property crimes across the region

Increase access for area residents to real time crime data and timely emergency alerts through the internet or mobile applications

The majority of the Healthy People Goals are met by greater than half of the region's population

Livability

	Fulfilled			Æ	×	\$		Ų,		$\bigcirc$
		Land Use	Transportation	Environment	Climate and Energy	Economic	Housing	Health and Human Services	Education	Public Safety
	Accessibility 1									
	Accessibility 2									
	Accessibility 3									
$\mathcal{N}$	Accessibility 4									
NĿ	Accessibility 5									
	Accessibility 6									
	Accessibility 7									
	Accessibility 8 Accessibility 9									
	Sustainability 1									
	Sustainability 2									
	Sustainability 3									
	Sustainability 4									
	Sustainability 5									
<u> </u>	Sustainability 6									
	Sustainability 7									
	Prosperity 1									
	Prosperity 2									
	Prosperity 3									
	Prosperity 4									
	Prosperity 5									
	Prosperity 6									
	Livability 1									
	Livability 2									
	Livability 3									
	Livability 4									
	Livability 5								<u> </u>	
	Livability 6									

 $\geq$ 



*The Accessibility goals for Region Forward are.....* 

• Transit oriented mixed use communities emerging in Regional Activity Centers that will capture new employment and household growth

• A transportations system that maximizes community connectivity and walkability, and minimizes ecological harm to the region and world beyond

• A variety of housing types and choices in diverse vibrant safe healthy and sustainable neighborhoods affordable to persons at all income levels

•A broad range of public and private transportation choices for our region which maximizes accessibility and affordability to everyone and minimizes reliance upon single occupancy automobiles



# **Accessibility Trends**

The portion of annual commercial construction in activity centers hovers near 50 % and the portion of housing units in Regional Activity Centers is forecast to decline

Beginning in 2012, capture 75% commercial construction and 50% of new households in Regional Activity Centers



VMT per capita is projected to gradualy decline over the next 20 years.

70% of the 2010 CLRP is dedicated to operations and maintenance

Attained

Unattained

Attained

Reduce daily vehicle miles traveled (VMT) per capita



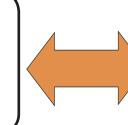


TARGET

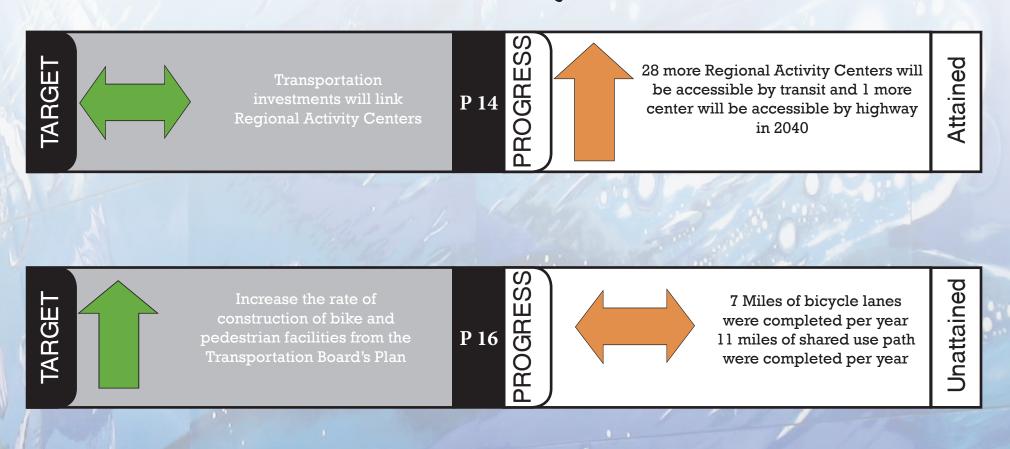
TARGET

The region's transportation system performance, maintenance, and and facilities

PROGRESS P 13



# **Accessibility Trends**



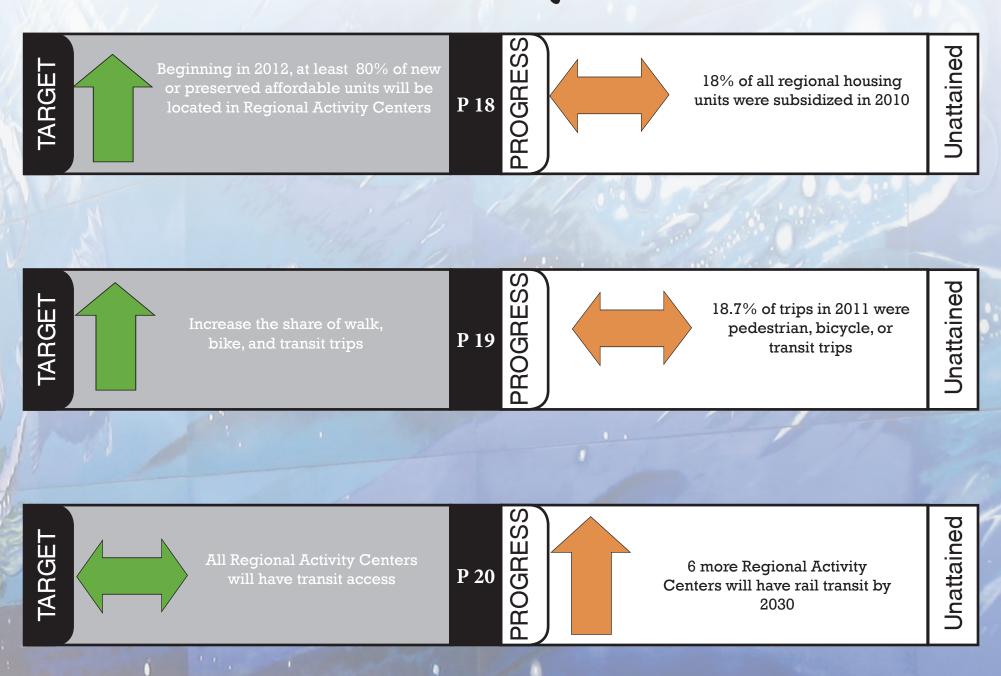


By 2020, the housing and transportation costs in Regional Activity Centers will not exceed 45 percent of area median income P 17 SSBUDOH

In 2010 a household with the region's median income could purchase housing and transportation in Regional Activity Centers for 39% of their income

# Attained

# **Accessibility Trends**



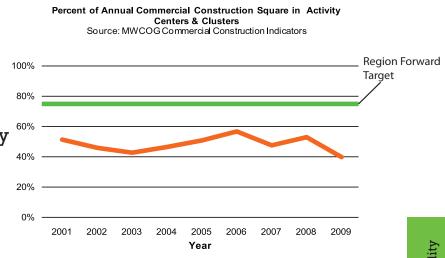
**Target:** Beginning in 2012, capture 75% of the square footage of new commercial construction and 50% of new households in Regional Activity Centers

Baseline:

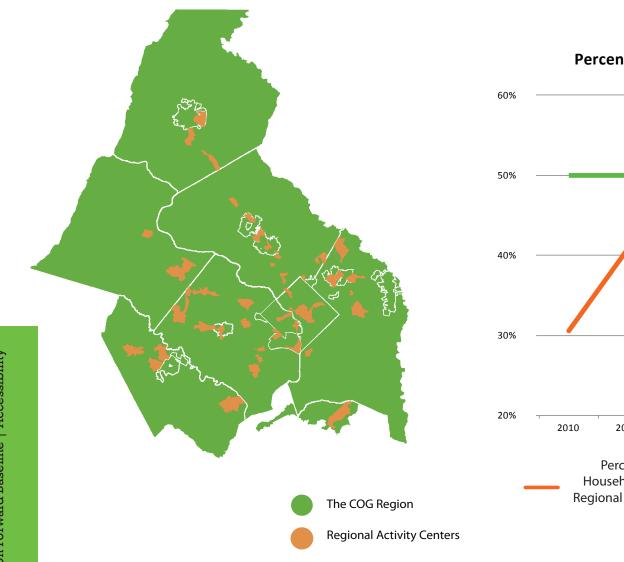
40%: Commercial Construction in 2009 31%: New Households Forecasted in Regional Activity Centers by 2040

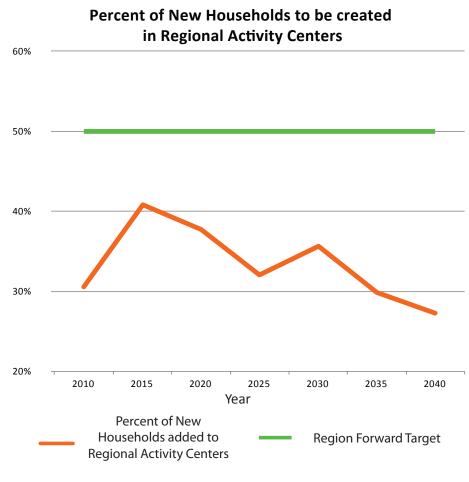
**Source:** MWCOG 2009 Commercial Construction Indicators, MWCOG; Round 8.0 Cooperative Forecast: Households, MWCOG

The proximity of residents and jobs to transit corridors in Regional Activity Centers will be critical for attaining this target. In 2009, a total of 66 commercial construction projects, totaling approximately 6.2 million square feet in 59 Regional Activity Centers. The new space accounted for 40 percent of the region's new construction activity. This baseline is determined by COG's annual Commercial Construction report. The Commercial Construction report tracks new non-residential construction projects based on location, size, value, and use.



Based on the Round 8 Cooperative Forecasts – for the period of 2005 and 2010 - 36% of new households were in Regional Activity Centers. COG's Cooperative Forecasting Program enables local, regional, and federal agencies to coordinate planning decisions using common assumptions about future growth and development in the region. Each series of forecasts, or a "Round," provides land use activity forecast of employment, population, and households by five-year increments. Round 8.0 was approved by the COG Board of Directors in 2010.



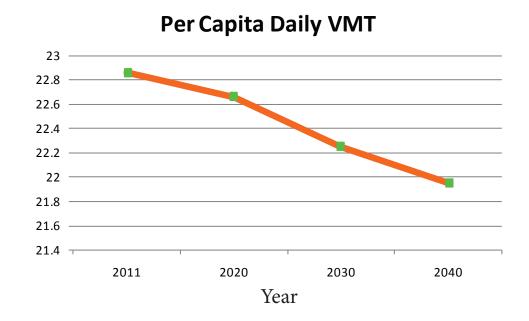


**Target:** Reduce daily vehicle miles traveled (VMT) per capita



Baseline: 22.86 vehicle miles per capita in 2011

**Source:** 2010 National Capital Region Transportation Planning Board Constrained Long Range Plan Performance Analysis



Vehicle Miles Traveled (VMT) Per capita is an important measure of regional mobility. In 2011 per capita VMT was 22.86 miles and current projections show this figure dropping below 22 miles by 2040.

This baseline is determined by the travel patterns of residents throughout the region. Daily VMT per capita is calculated by dividing the total vehicle miles traveled daily by the regional population.

Reducing per capita VMT decreases both congestion and pollution produced regionally producing health and economic benefits. However, the forecasted rate of decline in per capita VMT does not offset the overall increase in total annual VMT propelled by population growth.

Total annual VMT which is a measure of all vehicle miles traveled in the region is forecasted to increase over the coming decades. This measure is projected to increase despite declining per capita VMT because the region's population is projected to increases dramatically. Consequently, in the future this region will likely have significantly more people who each drive slightly less than current residents.

**Target:** The region's transportation system will give priority to management, performance, maintenance, and safety of all transportation modes and facilities



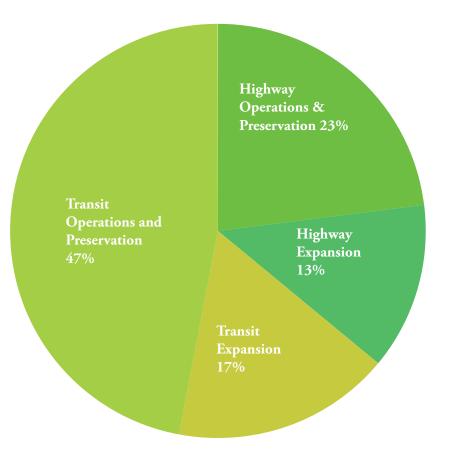
 $\begin{array}{c} \textbf{Baseline: 70\% of the 2009 Constrained} \\ \textbf{Long Range Plan is dedicated to operations and} \\ \textbf{maintenance} \end{array}$ 

#### **Source:** National Capital Region Transportation Planning Board 2010 Constrained Long Range Plan

This target is designed to ensure that the National Capital Region develops sustainable infrastructure. It is imperative that we continue to invest in the operations and maintenance of the systems and facilities that currently serve our region's population.

Some regions attempt to accommodate new growth by deferring maintenance and reducing operation budgets. However, evidence proves that this approach is unlikely to benefit the region in the long term because neglect often results in vastly more expensive repairs.

This baseline is determined by the value and purpose of items in the Constrained Long Range Transportation Plan (CLRP).



Each project is classified as one of four categories for this analysis; highway expansion, highway operations, transit expansion, and transit operations.

As the chart demonstrates our region currently devotes the vast majority of transportation funding to operations and maintenance ensuring that our transportation systems continue to serve this region well.

**Target:** Transportation investments will link Regional Activity Centers



**Baseline:** Between 2010 and 2040 **28** Regional Activity Centers are forecasted to experience increases in accessibility to other Regional Activity Centers by Transit and **1** by Highway

**Source:** National Capital Region Transportation Planning Board 2010 Constrained Long Range Plan

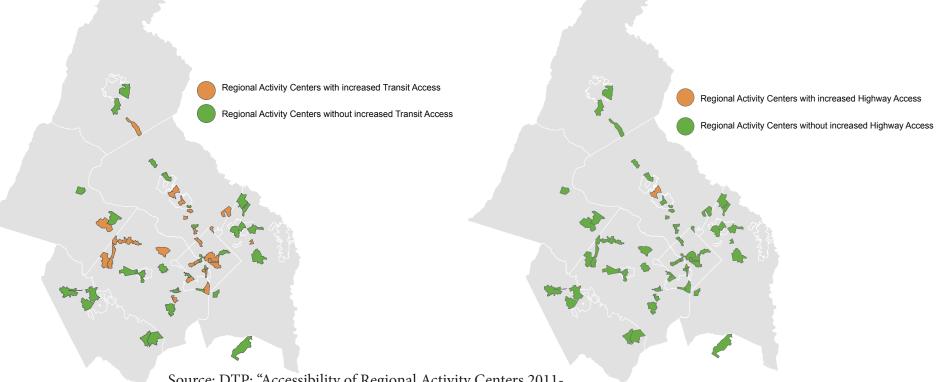
The National Capital Region has one of the most highly educated workforces and wealthiest consumer bases in the nation. Therefore, if our region can connect more people with centers of commerce we will grow stronger and more resilient. Regional Activity Centers are home to the highest concentrations of employment in the region, and they are the foundation of the National Capital Region's economy.

This target measures the region's economic strength by evaluating how many activity centers can be reached from each individual center within 45 minutes by highway and transit. Travel times are calculated using the transportation demand forecasting model developed by MWCOG specifically for our region.

Based on the current Constrained Long-Range Transportation Plan the National Capital Region's transportation investments twenty eight centers will experience increased accessibility to other Regional Activity Centers by transit and 1 by highway between now and 2040.

Most accessibility gains will come from transit because highway congestion will continue to increase over the next thirty years at a rate that will consume planned capacity increases. The gains in transit accessibility come from activity centers with existing Metrorail stations that are within a 45 minute trip of future stations along the Metrorail Silver line that is currently under construction.





Source: DTP: "Accessibility of Regional Activity Centers 2011-2040 change in 45 min access.

**Target:** By 2020, the housing and transportation costs in Regional Activity Centers will not exceed 45% of area median income



**Baseline: 39%** of median household income is consumed on average by housing and transportation expenses in Regional Activity centers in 2011

**Source:** Center for Neighborhood Technology, Housing and Transportation Index, February 2011

Housing and transportation expenses are typically the two largest expenses for households. However, it is very difficult to compare either housing or transportation cost regionally. In less dense areas housing is generally priced lower than the most dense areas. On the other hand in dense areas transportation cost tend to be lower. When both of these cost are combined a more accurate assessment of affordability is achieved. Furthermore, because these two needs consume approximately half of a typical household's income they provide valuable insight into economic equity and resilience.

This target utilizes data produced by the Center for Neighborhood

Technology that measures the combined costs of housing and transportation. Areas where a median income household can spend less than 45 percent of their income on both housing and transportation expenses are considered affordable. The threshold of 45 percent is derived from generally accepted figures for housing and transportation affordability of 30 percent for housing and 15 percent for transportation.

Housing and transportation costs are compiled by the Center for Neighborhood Technology. Housing costs are developed using, Census block group level data for selected home owner and renter cost from the 2000 Decennial Census.

Transportation costs are calculated using a peer reviewed multiple regression model developed by the Center for Neighborhood Technology and the Brookings Institution.

This index has emerged as the national standard for assessing basic community affordability.

19

Combined Housing and Transportation Cost Below 45% of AMI

**Target**: Beginning in 2012, at least 80% of new or preserved affordable housing units will be located in Regional Activity Centers



**Baseline:** 18 % of all subsidized housing units were located in regional activity centers in 2010

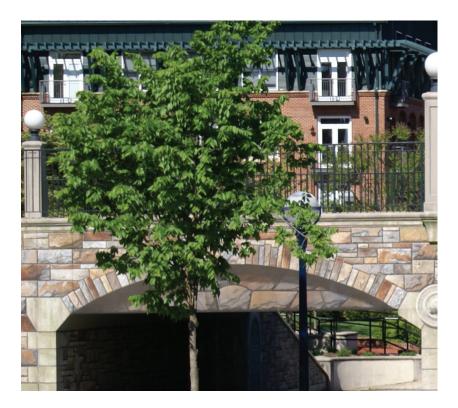
## **Source:** MWCOG 2010 Affordable Housing Database

A strong community provides equal opportunity for all of its members to engage in commerce and culture. Consequently, it is critical that our region develop public policy that intrinsically links housing with areas of employment and culture. As a region we need to ensure that the policies governing development of major centers of commerce and culture include low income residents.

In an effort to better understand where the region's subsidized affordable housing exists MWCOG's housing department has developed a geo-database detailing the location and characteristics of subsidized affordable housing throughout the region. This database details how a unit is subsidized and how many units are located at each property. This tool is still in development. As a result, it has some significant limitations including, a lack of construction dates, inconsistent data collection methods, and a lack of historic data.

Ultimately, these limitations reduce our confidence in the current data. Consequently, the data are not capable of detailing how many new units have been constructed in Regional Activity Centers. However, MWCOG staff and partners are working to improve the quality of this dataset so that future reports will be more accurate and reliable.

Still the current data quality allows the Region Forward Coalition to track relative growth of affordable housing within Regional Activity Centers. This measure is imperfect but it does provide insight into how the region's housing, transportation, and employment policies are performing.

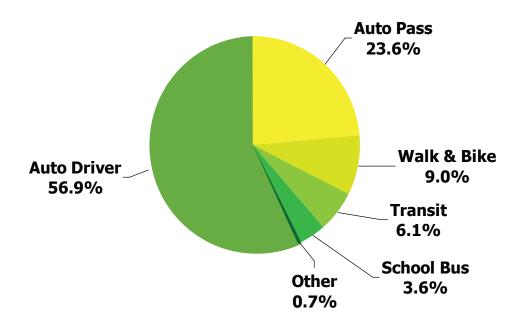


**Target:** Increase the share of walk, bike, and transit trips

园园本等龄论

Baseline: 18.7% of trips were by walking, bicycle, or transit in 2007/2008

**Source:** National Capital Region Transportation Planning Board 2007-2008 Household Travel Survey



Increasing walking, bicycle, and transit trips is important because they provide the most affordable and attainable means of access to regional amenities. These modes are also critical to ensuring regional health because they inherently require more physical activity than automotive transportation. Furthermore, non-automotive transportation uses vastly less energy per passenger mile which reduces the environmental impact of transportation.

In 2007 and 2008 non-automotive trips comprised 18.7% of all trips in the National Capital Region. By national standards our region has a high percentage of non-automobile trips. Our region's high rate of non-automotive trips is the product of several factors including the Metrorail system, regional bicycle trails, and extensive pedestrian infrastructure. Increasing the rates of walking, bicycle, and transit trips can be achieved through a variety of mechanisms ranging from increased off peak transit service to the Safe Routes to School programs.

This baseline is determined by the 2007-2008 National Capital Region Transportation Planning Board Household Travel Survey. This survey measures all trips taken by households over the course of a survey period.

**Target:** All Regional Activity Centers will have transit access



**Baseline:** 53% or 31 out of 59 Regional Activity Centers are Served by rail transit in 2011

#### **Source:** National Capital Region Transportation Planning Board 2010 Constrained Long Range Plan

Transit Access in Regional Activity Centers	2011	2040
Regional Activity Centers with Rail Transit	53%	63%
Metrorail stations within Regional Activity Centers	25	31
Commuter Rail stations within Regional Activity Centers	15	15
Regional Activity Centers without Rail Transit	28	22
Rail Stations Not Located in Activity Centers	73	76
Metrorail stations outside of Regional Activity Centers	37	39
Commuter Rail Stations located outside of Regional Activity Centers	36	37

The National Capital Region's economy serves a tremendous breadth of economic sectors. Our Regional Activity Centers are designed to encompass the various physical geographies created by different economic sectors.

For example, the District of Columbia's economy is dominated by a large federal agency presence near the National Mall; while the economy near Dulles Airport is characterized by large technology firms located on bucolic campuses. Consequently, the different needs for each center have shaped their infrastructure. Since, each center represents major employment concentration transit access is critical. Transit ensures that all people in the region can access our key centers for employment and commerce.

This baseline is determined by the number of Regional Activity Centers that have Metrorail and commuter rail service. Bus service is excluded because service quality is difficult to establish and longterm operations are unpredictable. Consequently, the data collected for this target will provide a sense of how well our land use and transportation decisions correspond over time. Clearly, this is not an exhaustive analysis of activity center accessibility.

Currently, 53 percent of our Regional Activity Centers are served by rail transit. Plans for expansion of the regional rail network will serve 63 percent of Regional Activity Centers by 2040. These rates are relatively high in comparison to many other metropolitan regions. Still our region currently has a mismatch between our land use and our transportation infrastructure because a majority of the region's rail stations are not located in Regional Activity Centers. This challenge is likely the result of the relatively recent introduction of Metrorail as a transportation service following several decades of auto oriented development.

22

**Target:** Increase the rate of construction of bike and pedestrian facilities from the Transportation Planning Board's Plan

### **Baseline:**

- 7 Miles of bicycle lanes completed per year 2006-2010
- $11\,$  Miles of shared use paths completed per year 2006-2010

**Source:** National Capital Region Transportation Planning Board 2010 Bicycle and Pedestrian Plan

Facility Type	Totals in 2005	Completed 2006-2010	Planned New Facilities/ Upgrades	Total Planned for 2040
Bicycle Lane	56	35	450	541
Shared-Use Path	490	53	630	1173
Total	546	88	1080	1714

Bicycle and pedestrian infrastructure is a critical aspect of our region's transportation system. This target measures regional progress toward providing facilities that will make these modes of transportation safer and more appealing.

Bicycle and pedestrian infrastructure benefits all regional residents because every trip starts and ends with a pedestrian trip. Therefore, these pieces of infrastructure will enhance mobility for all residents by creating an enhanced pedestrian realm.

They will also promote environmentally sustainable accessibility solutions that will encourage higher active transportation rates. Active transportation promotes healthier lifestyles that reduce incidence of obesity, diabetes, and heart disease.

As of 2010 the region has completed 17 percent of the bicycle lanes and 46 percent of the shard use paths planned for completion by 2040. The baseline is determined by analyzing the bicycle and pedestrian elements of the Constrained Long Range Plan prepared by the Transportation Planning Board.



**Dedicated Facilities Improve Health and Safety** 





### The Sustainability goals for Region Forward are.....

• A significant decrease in greenhouse gas emissions, with substantial reductions from the built environment and transportation sector

• Efficient public and private use of energy region-wide, with reliance upon renewable energy and alternative fuels for buildings, vehicles, and public transportation

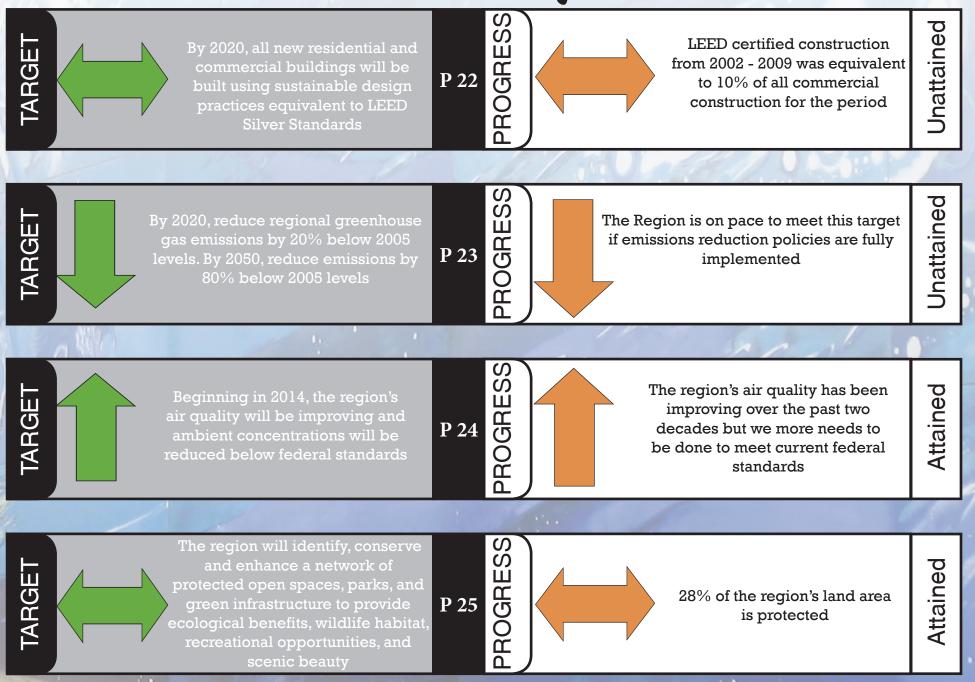
• Enhancement of established neighborhoods of differing densities with compact, walkable infill development, rehabilitation and retention of historic sites and districts, and preservation of open space, farmland and environmental resource land in rural areas

• Protection and enhancement of the region's environmental resources by meeting and exceeding standards for our air, water, and land

• Preservation and enhancement of our region's open space, green space, and wildlife preserves



# **Sustainability Trends**



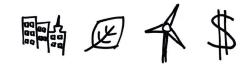
# **Sustainability Trends**







**Target:** By 2020, all new residential and commercial buildings will be built using sustainable design practices equivalent to LEED Silver Standards



**Baseline:** LEED Certifications accounted for 10% of Commercial Construction from 2002-2009.

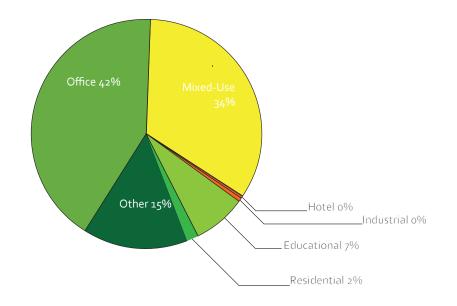
#### **Source:** MWCOG 2011 Green Building Trends Report

From 2002 – 2009 the square feet of LEED certified construction in the National Capital Region averaged 10 percent of commercial construction square feet. Green building practices have become increasingly common in the national capital region but they will need to become the foundation of building codes to achieve this goal.

It is important to note that comparing all LEED certification to regional commercial construction is not a level comparison. LEED certification includes construction practices and building types not measured by the MWCOG's annual commercial construction report. For example, single family homes are not included because they are purely residential and commercial interior remodeling is excluded because no new commercial space is produced.

Furthermore, LEED certifications are just one of many possible classification systems for green building. In addition to LEED, Green Globes, and Energy Star certifications both command substantial portions of the green building certification market. Many local jurisdictions have enacted building and zoning codes that incorporate green building principals to ensure that all new buildings are designed sustainability. As a result, of competition and growing support for green building practices USGBC's LEED certification system is growing less dominant as a measurement of green building practices region.

Since green building certifications are becoming less common and more fragmented the baseline uses LEED certification as an indicator. Certifications serve to identify the tip of the iceberg but ongoing analysis of green building practices will be necessary to determine its true size.



**Target:** By 2020, reduce regional greenhouse gas emissions by 20% below 2005 levels. By 2050, reduce emissions by 80% below 2005 levels



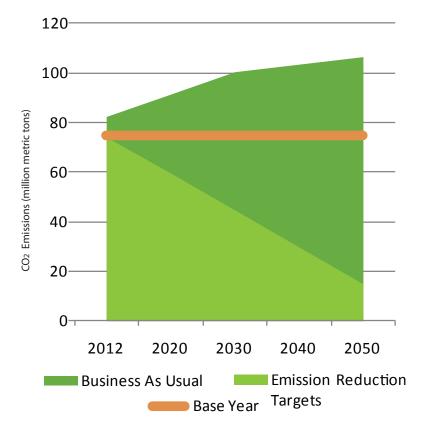
**Baseline:** If the emissions reduction policies are fully implemented the region is on track to attain the target

### **Source:** MWCOG Climate Change Report

"The failure to reduce greenhouse gases can undermine the quality of life in our region and its economic and environmental sustainability." *Metropolitan Washington Council of Government Board Resolution* R31-07, April 2007

In 2005, the metropolitan Washington region produced approximately 72 million metric tons of greenhouse gas emissions. Current projections for population and employment growth are increasing; by 2050, the region expects to add more than 1.6 million people and 1.2 million jobs. This growth trend will impact both the natural and built environments contributing to increases in greenhouse gas emissions in the region. If no new environmental polices are enacted greenhouse gas emissions will increase 43 percent by 2050. If the region fully implements its emissions reduction policies emissions will be reduced to 80 percent to14 million tons in 2050.

The Region Forward Coalition has incorporated the greenhouse gas emissions targets adopted by the COG Board of Directors in 2008. The Board assigned its Climate, Energy and Environment Policy Committee (CEEPC) with reassessing these goals every three years to reflect revised data and future policy changes. Should the COG Board, based on CEEPC's recommendation, revise these goals, this will be reflected in an update to the Region Forward targets.



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



**Baseline:** The region's air quality is currently improving at a rate likely to achieve this target

## **Source:** EPA defined design value MWCOG, MWAC, EPA

Air quality in the metropolitan Washington region has improved in recent decades, but the region continues to have a problem with ozone pollution natively affecting public health. Recent scientific research has shown that exposure to ground level ozone can cause lung damage. Adults and children spending significant amounts of time working or playing outdoors are especially vulnerable to ozone pollution. Region Forward established an air quality target to improve upon or meet federal standards by 2014.

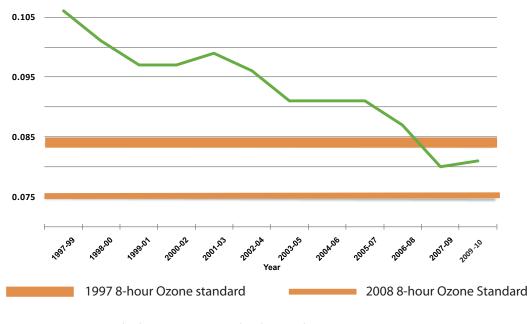
**Ozone Parts Per Million** 

The baseline report will measure the region's progress relying on air quality data collected from air quality monitoring stations around the region. COG reports the data that is collected by the states of Maryland and Virginia and the

#### District of Columbia.

In April of 2004, the Environmental Protection Agency (EPA) designated the metropolitan Washington region as moderate nonattainment for the 8-hour ozone standard of 0.084 parts per million (ppm) established in 1997. Based on the 2008 – 2010 period, the region reached an 8-hour ozone level of 0.081 ppm and is therefore meeting the 1997 standard (0.084 ppm). The ozone standard was made more stringent in 2008 (0.075 ppm). Based on the most recent data for the same time period, the region is yet to meet the 2008 standard. In order to meet this higher standard, the region will need help from the federal government with new regulations and national level programs that promote cleaner fuels and cleaner engines.

#### 8-hour Ozone Design Value Washington, DC-MD-VA Nonattainment Area (199-2010)



Region Forward Baseline | Sustainability

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



**Baseline:** 28% of acres in the COG region are protected

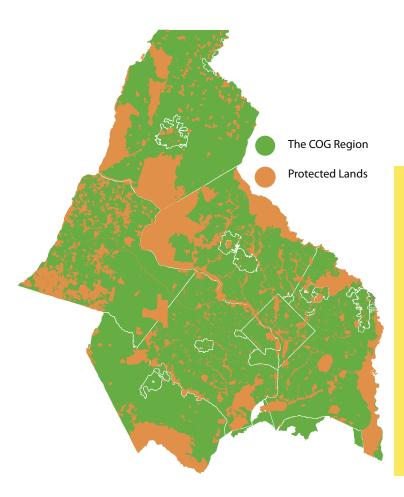
**Source:** MD Department of Natural Resources and the VA Department of Conservation and Recreation Division of Natural Heritage, National Parks Service

All jurisdictions in the national capital region are benefited by natural resources. This target is designed to capture data on the multitude of systems that comprise the region's natural resource system. In some cases detailed information is readily available but in others measurement methods will need to be developed. Still, imperfect data will provide a sense of how impactful the region's environmental policies have been at protecting the environment. This target has two primary categories, protected lands, and green infrastructure.

Protected lands are the best defined and most easily measured of the two categories. These areas include officially designated parks and conservation areas throughout the region. In 2010 more than a quarter of the COG region was protected. Hopefully, the region will continue its widespread support for these efforts.

Green infrastructure on the other hand will be more difficult to measure because the concept of Green Infrastructure is fairly new. Green Infrastructure refers to storm water management practices that utilize natural systems to absorb some of the burden for traditional "grey storm water infrastructure" like storm sewers.

The Region Forward Coalition is currently studying how to collect data for this target. Data collection for these systems will likely begin with an implementation indicator such as green roofs then evolve into a more exhaustive analysis that incorporates other practices.



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



**Baseline:** 8% or 51 out of 649 sentinel watersheds are in good or excellent condition

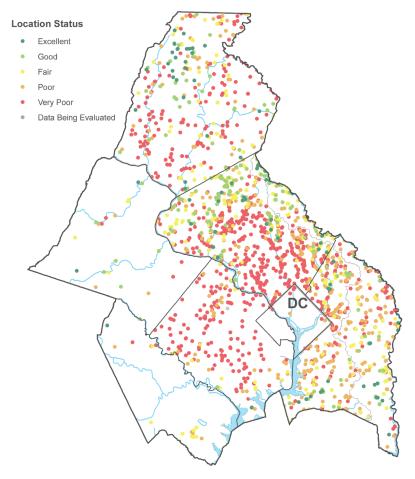
### **Source:** U.S. Chesapeake Bay Program Office Health of Freshwater Streams 2010

An effective way to measure the health of freshwater streams and rivers is to study benthic macroinvertebrates – bottom-dwellers such as snails, mussels, and insects that live in and on the stream and river bottom. They are routinely monitored in watersheds throughout the COG Region by the states, local governments, and other organizations. The abundance and diversity of these organisms are good indicators of local stream health because they have more limited movement than fish and they respond quickly to pollutants such as nutrients and sediment and other environmental stressors. For example, stream health conditions tend to be very poor to fair in areas that have extreme land disturbance, such as new construction, which results in high levels of pollution, altered water flow, and poor quantity and quality of streamside vegetation. In contrast, stream health conditions tend to be good to excellent in areas with little land disturbance that offer low levels of pollution and natural in-stream and streamside habitat.

Out of a total of 649 sampling sites in the Metropolitan Washington region, only 51 had good or excellent conditions and 515 had poor or very poor conditions. Data from an additional 51 sites is still under evaluation. Developing this indicator provides an important tool for managers and watershed groups who are

focusing efforts to restore degraded streams and protect the quality of the healthiest ones. In general, it can be said that healthy watersheds fall in the good to excellent range, which is why a regional goal of having 50% of all monitored watersheds achieving an index of good or excellent by the year 2050 has been established.

#### Health of Freshwater Streams in the Metropolitan Washington Council of Governments Area



**Target:** Beginning in 2012, the region will maintain more than 450,000 acres of agriculture land in farms

Baseline: 489,004 Acres

#### **Source:** USDA Agriculture Census 2009

	Acres of Land in Farms (2007)	Acres of Land in Farms (2002)	Acres Change	Percent Change
District of Columbia	v	n/a	n/a	n/a
Arlington County	n/a	n/a	n/a	n/a
Fairfax County	7,031	9,946	-2,915	-29%
Loudoun County	142,452	164,753	-22,301	-14%
Prince William	32,816	32,549	267	1%
Frederick County	202,087	195,827	6,260	3%
Montgomery County	67,613	75,077	-7,464	-10%
Prince George's	37,005	45,462	-8,457	-19%
Total	489,004	523,614	-34,610	-7%
Source: USDA 2009 Ag	riculture Census			

This target was developed to monitor the impact of sprawl on the local food production system. Agriculture production provides jobs and income to farmers and farm workers, while farmland provides open space that helps to protect ecosystems and natural resources.

Additionally, local food reduces the amount of greenhouse gasses produced by transporting food long distances. For example, produce in the U.S. travels on average 1,300 to 1,500 miles from farm to consumer. Local food systems can reduce "food miles" and transportation costs, offering significant energy savings. Consumers also benefit from fresher, better-tasting, and more nutritious food. While more food dollars stay within the regional economy.

Additionally, more residents understand the importance of buying their food locally, through purchasing food from local farmers markets or buying shares through a community supported agriculture (CSA) farm. Beyond large scale farms, urban agriculture is gaining popularity and can help contribute to a local or regional food source. These demands in conjunction with this region's growing population will ensure that the future will demand more of local agricultural rescores.

Source: USDA 2009 Agriculture Census

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



Baseline: Working on a solution

## **Source:** Chesapeake Bay 'Program; District of Columbia, Maryland, and Virginia, and COG members

The Chesapeake Bay is a defining environmental and cultural asset for the National Capital Region. Unfortunately, our region's tremendous growth has significantly contributed to declining water quality in the Bay. This target seeks to gauge progress toward reducing our impact on the Bay by reducing nitrogen and prosperous released into the bay.

The data for this data have not been released as of the publication of this report. However, MWCOG Environmental Programs staff have ensured that when the data is available that it will be collected in a consistently measurable manner.



### Prosperity

The Prosperity goals for Region Forward are.....

• A diversified, stable, and competitive economy, with a wide range of employment opportunities and a focus on sustainable economic development

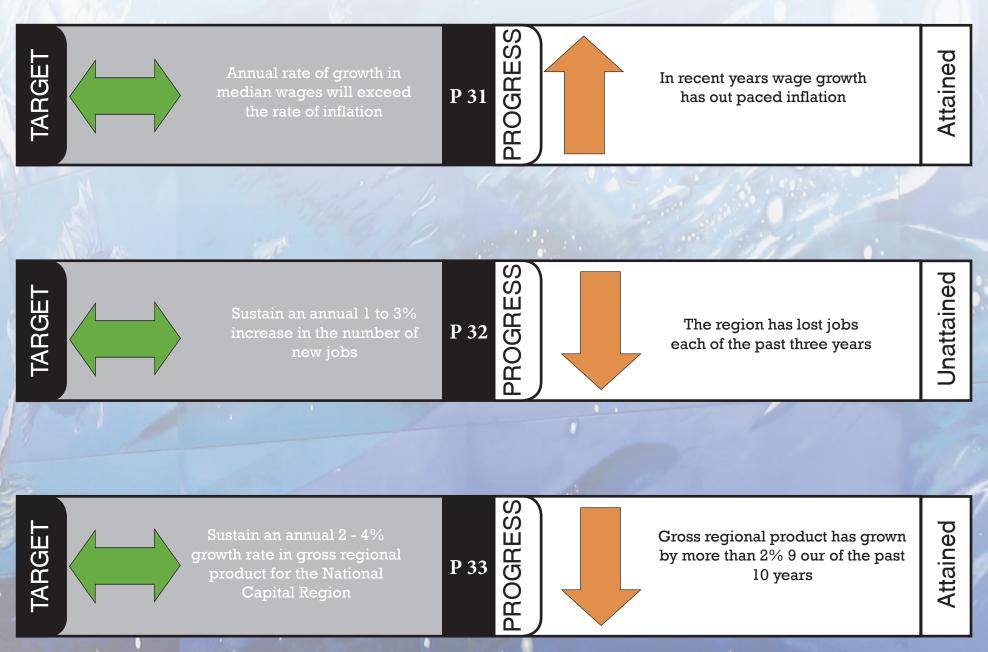
• Minimize economic disparities and enhance the prosperity of each jurisdiction and the region as a whole through balanced growth and access to high-quality jobs for everyone

• Fully recognize and enhance the benefits that accrue to the region as the seat of the National government and as a world capital

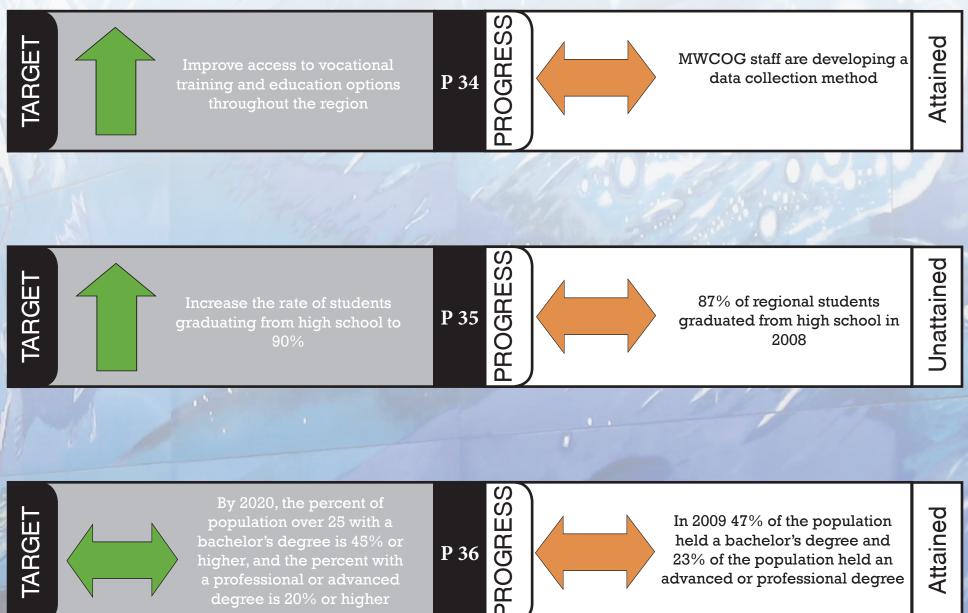
• Provide greater access to the best education at all levels, from pre-kindergarten to graduate school

• Make our region a pre-eminent knowledge hub, through educational venues, workforce development, and institutional collaboration

# **Prosperity Trends**



# **Prosperity Trends**



P 36

TARGET

population over 25 with a bachelor's degree is 45% or higher, and the percent with a professional or advanced degree is 20% or higher

In 2009 47% of the population held a bachelor's degree and 23% of the population held an advanced or professional degree Attained

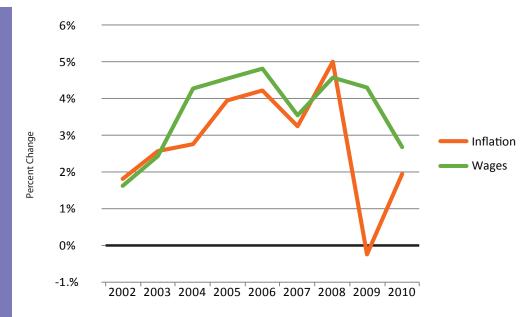
**Target:** Annual rate of growth in median wages will exceed the rate of inflation.



# Baseline: Median wages Grew faster than inflation in 2010

#### **Source:** U.S. Bureau of Labor Statistics Consumer Price Index

(Data from 2001 - 2004 are for the DC-MD-CA-WV PMSA, Data from 2005 - 2010 are for the DC-MD-VA-WV MSA)



In order to ensure that wages are correlated with prosperity the rate of inflation must be taken into account. Wages adjusted for inflation are called "real wages". This measure neutralizes year to year changes in the dollar's value. Real wages help policy makers to accurately compare purchasing power across time. When real wages are compared to other measures such as median wages and unemployment policy makers are able to determine if quality of life is improving or declining.

Over the past decade the region's wages have generally grown faster than inflation. From 2006 through 2009 inflation has proven volatile swinging from a high of five percent to slight deflation. Consequently, the real value of our region's wages have also been in flux recently.

Year to year vacillations can create hardships for marginal households. However, the intent of this target is to determine if growth in wages outpaces inflation over the long term. Compounding wage growth relative to inflation will help our region's residents acquire a higher quality of life by giving more residents more purchasing power in return for their labor. These resources can be used to attain a variety of goods and services including better housing, more efficient transportation, or better education.

**Target:** Sustain an annual 1 to 3% increase in the number of new jobs



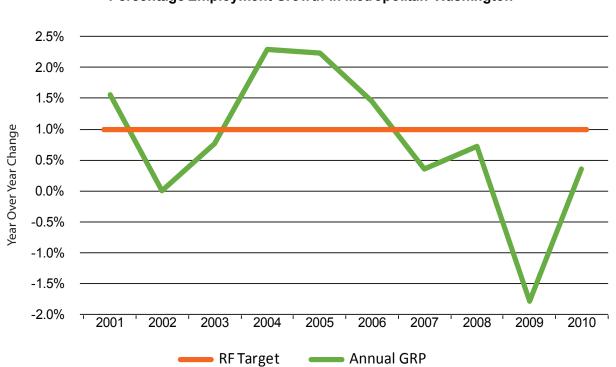
#### Baseline: 0.36 % increase in new jobs in 2010

#### **Source:** ES-202 VA,MD,DC Wage and Salary Employment

The vibrant economy in this region will likely continue to attract new residents. This trend is reflected in the current population forecasts which project a 30 percent population increase by 2040. Sustained employment growth will be a critical to ensure that our region grows sustainability. Creating new jobs ensures that new residents will be filling new positions instead of overcrowding the existing labor market.

These data are collected by each state as part of the federal ES-202 program. The data are compiled from unemployment insurance premiums collected by each state.

Currently, the region is producing enough



Percentage Employment Growth in Metropolitan Washington

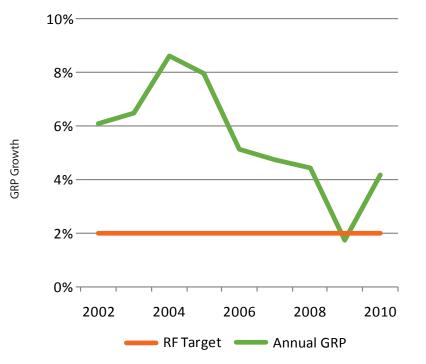
new jobs to satisfy population growth but long-term forecasts indicate that the region's job creation might decline below 1 percent near 2030. In the short term the recent recession has produced a period of negative job growth. This down turn has corresponded with increased unemployment claims. It is imperative that our region return to its pre recession job growth rate as soon as possible to ensure that our economy remains strong and accessible.

**Target:** Sustain an annual 2 to 4% growth rate in gross regional product for the National Capital Region



 $\begin{array}{c} \textbf{Baseline: 4.2\% growth in gross regional} \\ \textbf{product in 2010} \end{array}$ 

**Source:** U.S. Bureau of Economic Analysis Gross Domestic Product by Metropolitan Statistical Area 2011

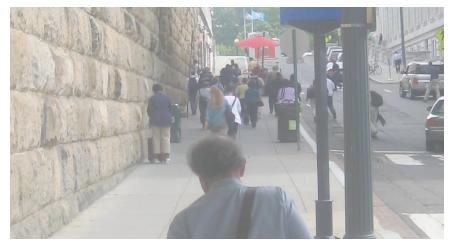


Gross Regional Product is one of the most common measurements for regional quality of life. Quality of life is assessed by comparing growth or decline in a region's gross regional product to other demographic and economic measures such as population growth, unemployment, educational attainment, and employment sector analysis.

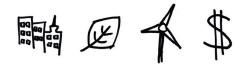
Since the National Capital Region will likely experience a significant increase in population over the coming decades it is imperative that the reign's economy grow large enough to equitably accommodate new residents.

Historically, growth rates between two and four percent have been most common. It is important to note that between 2001 and 2009 this region achieved a much higher growth rate of 6.8 percent. History indicates rates above 4 percent are unlikely to persist over the long term.

Gross regional product can be increased in many ways including, worker productivity, employment sector expansion, and adding new types of products.



**Target:** Improve access to vocational training and educational options throughout the region



# **Baseline:** A study method has been developed

Analyzing access to vocation training and educational options is a new challenge for the Metropolitan Washington Governments. Over the past year COG staff has worked with members of the Region Forward Coalition to develop a research and analysis plan for this important goal.

We will first identify the region's educational institutions by analyzing a regional database of employers using NAICS codes associated with organizations that provide vocational training and education. Then COG staff will develop a map of these locations to determine their accessibility to the region's priority transportation network. Finally, COG staff will use a combination of state education data and surveys to determine what kind of education is provided and how many students receive instruction at each institution.

This research will enable the Region Forward Coalition to better understand the accessibility and availability of vocational training and education.









**Target:** Increase the rate of students graduating from high school to 90%

翩 四 承 \$

# Baseline: 87% of high school students graduated in 2008

#### **Source:** Regional School Districts

High school graduation rates are traditionally used as a key indicator of school effectiveness. Region Forward has challenged the region's school districts to reach a 90 percent high school graduation rate. This high benchmark is critical because high school graduation has a well established connection to an individual's long term health and wealth.

In 2008 the national capital region had a graduation rate of 87 percent. This benchmark indicates that our region is very close to attaining our goal. Clearly this is a good starting point but we must be persistent in pursuit of this target because the future in this region will likely favor better educated workers.

It is important to note that the statistical method used to collect these data has been challenged because there is a substantial rate of error and distortion. Most notably the current method allows 6



years for graduation and includes GED certificates. Unfortunately, research has demonstrated that students who require longer than four years to graduate from high school or earn a GED are less likely to be financially stable and physically healthy. Consequently, a more rigorous methodology has recently been adopted as the national standard which will provide better data beginning in 2011.

Using the new methodology will cause graduation rates to appear much lower because graduation will be more rigidly defined to ensure better quality data. It is likely that the new methodology will impact some school districts more than others and ultimately the region might be further away from its goal than it currently appears.

**Target:** By 2020, the percent of population over 25 with a Bachelor's degree is 45% or higher , and the percent with a professional or advanced degree is 20% or higher



#### **Baseline**:

47% attained a Bachelor's Degree or higher in 2009

23% attained a professional of advanced degree in 2009

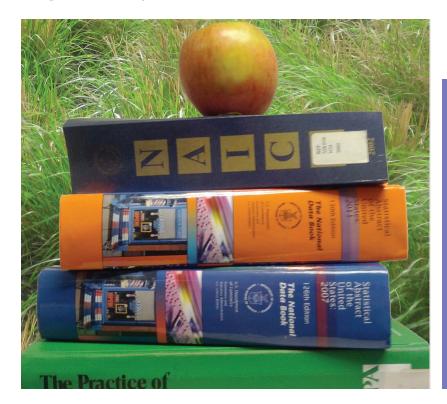
#### **Source:** 2009 1-Year American Community Survey: Educational Attainment

Higher education is a key indicator of prosperity nationwide because higher educational attainment is closely linked with better wages and better long term health.

The economic structure of the National Capital Region has a high concentrations of governmental services and professional services jobs. The prominence of these employment sectors creates a premium for higher education. To ensure that our region is preparing its workforce for this economy it is imperative that residents have high educational attainment to ensure that they can find good jobs.

Currently, our region is exceeding the baseline for both Bachelor's Degree attainment and Advanced or Professional Degree attainment by more than two percent each. These attainment rates reflect the region's current depth of skilled workers.

In the future the National Capital Region will have to work diligently to sustain this very high level of education. Many current residents were educated outside of the region and moved here for employment. It is essential that current residents continue to develop the skills necessary to thrive in our region's fast paced economy.





- Make the production, preservation, and distribution of affordable housing a priority throughout the region

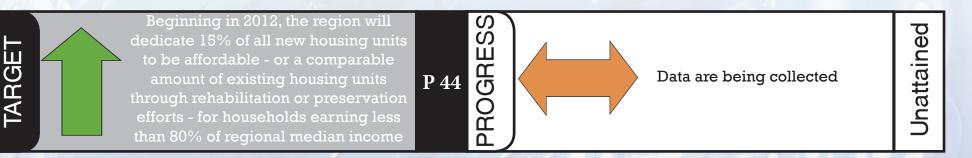
-Healthy communities with greater access to quality health care and a focus on wellness and prevention

- Provide access and delivery of quality social services to all residents

-Safe communities for residents and visitors

-Partnerships that manage emergencies, protect the public health, safety, welfare, and preserve the lives, property and economic well - being of the region and its residents

# **Livability Trends**



Beginning in 2012, the region will maintain a minimum of 10% of the region's housing stock affordable to households earning less than 80% of the regional median income



6% of all housing units in the COG region are subsidized

Unattained

TARGET

**TARGET** 

Reduce the number of pedestrian and bicycle fatalities across the region



Pedestrian fatalities have been declining in past years but bicycle fatalities have increased slightly

Attained

# **Livability Trends**



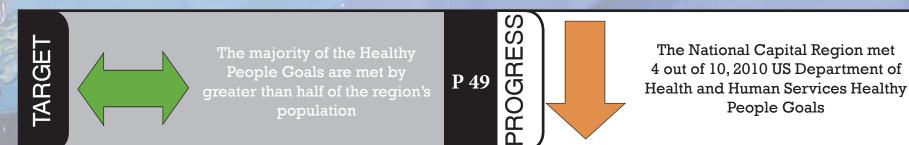
TARGET

Increase access for area residents to real time crime data and timely emergency alerts through the internet or mobile applications



MWCOG staff are working to develop a study method for this target

# Unattained



Unattained

Target: Beginning in 2012, the region will dedicate 15% of all new housing units to be affordable or a comparable amount of existing housing units through rehabilitation or preservation efforts - for households earning less than 80% of the regional median income

■ 2 1 \$

Baseline: Initial data will be established



**Target:** Beginning in 2012, the region will maintain a minimum of 10% of housing stock affordable to households earning less than 80% of the regional median income



**Baseline:** In 2010 6% of housing units were subsidized

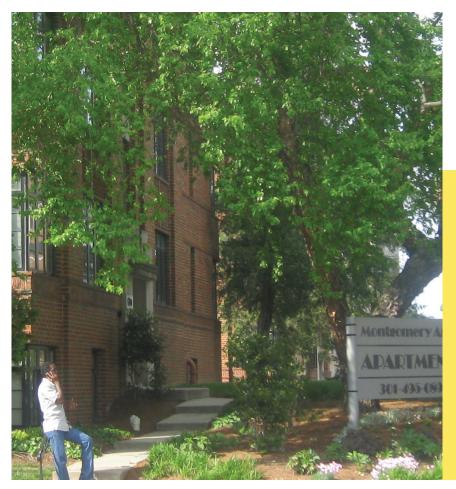
**Source:** Subsidized Housing Units - MWCOG 2010 Affordable Housing Database Total Housing Units - US Census Bureau 2010 Decennial Census

The price structure of the region's housing stock impacts the basic supply and demand of housing. If housing is over supplied the average price will be low reducing the incentive for investors to build new units. However, on the other hand if supply is too low the value of creating new units will become so high that investors will be over incentivized to build luxury housing. Over production of luxury housing in a market with strong demand will increase downward market pressure that inflates the value of affordable units.

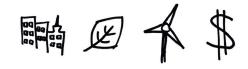
This target measures how the housing market serves the lower income households. Currently, data is only available for subsidized housing

units. Therefore, this baseline does not include market rate affordable housing which should serve a larger portion of the housing market than subsidized units.

Still, the current data series provides insight into how the housing market is functioning for lower income residents. Specifically, comparing changes in the ratio of subsidized housing to total housing units will yield valuable insights into how the affordable housing market is functioning.

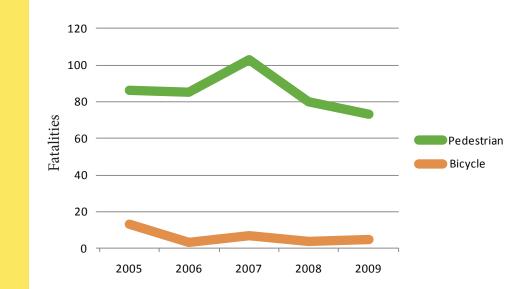


**Target:** Reduce the number of pedestrian and bicycle fatalities across the region



**Baseline:** Pedestrian fatalities were declining while bicycle fatalities increased in 2009.

**Source:** Virginia Department of Motor Vehicles; District of Columbia Department of Transportation; Maryland Highway Safety Office

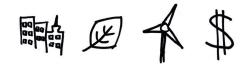


The ability to attain safe efficient mobility is a critical aspect of livability. Walking and bicycling are two of the most universally attainable modes of transportation. Consequently, it is imperative that residents are able to use these modes of transportation safely, otherwise transportation becomes unnecessarily difficult to attain .

This target measures pedestrian and bicyclist safety by comparing annual traffic fatalities for each mode. Each state collects data detailing transportation injuries and fatalities. Comparing annual fatalities contextualizes the relative safety of each transportation mode. Over the past five years both modes have declined over all while experiencing some single year increases. These trends indicate that both modes are becoming safer over time.

Safety can be enhanced for pedestrians and bicyclist in many different ways. For example, increased traffic law enforcement can create a more predictable environment where conflicts are less likely to occur. Additionally, structural changes can be made to the transportation network such as adding bicycle lanes and new sidewalks. Operational changes such as lower speed limits and longer crosswalk intervals can also improve safety. The most beneficial options will depend upon local context. Thus, this target provides a broad measurement of how well all efforts are working in concert.

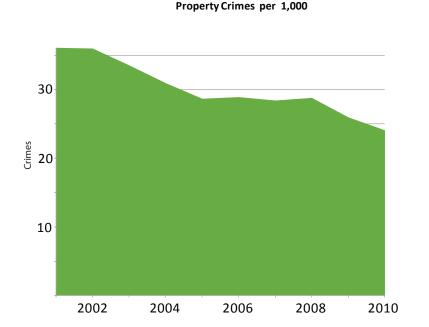
**Target:** Reduce the number of violent and property crimes across the region



**Baseline:** Both violent and property crimes were declining in 2010

#### Source: MWCOG Annual Report on

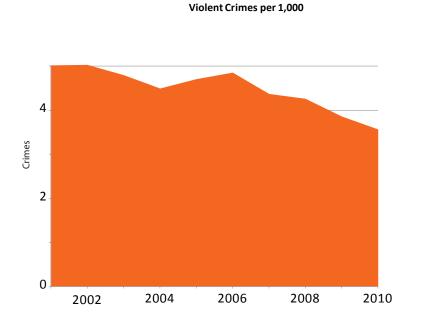
**Crime and Crime Control** 



Crime of any type impairs the livability of a community and violent crime in particular degrades a region's quality of life. This target measures both property and violent crime rates from year to year providing a snap shot of the region's safety.

The baseline number is determined by MWCOG's Public Safety Department in their Annual Report on Crime and Crime Control. Their report uses the Federal Bureau of Investigation definitions of violent and property crimes.

Over the past five years the National Capital Region has experienced slight declines in both property and violent crimes. These improvements indicate that our region's efforts to enhance public safety are improving the livability of our region. If the region continues to reduce the rate of both violent and property crime over the long term we will significantly enhance livability.



**Target:** Increase access for area residents to real time crime data and timely emergency alerts through the internet or mobile applications



**Baseline:** A methodology is being developed

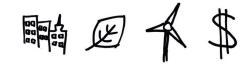
**Source:** Data will be collected from the MWCOG Public Safety committees

Real time crime data are important tools for both residents and decision makers in our region. Collecting timely and accurate data for crimes throughout the region will enable law enforcement agencies to respond more effectively to emerging threats. Additionally, better data will help policy makers to more efficiently allocate public safety resources ensuring that our region gets the most benefit for its investments.

The Region Forward Coalition is working with the MWCOG Public Safety Department to collect data for this target. These data will be collected using a survey of the region's public safety officials. The survey will seek to identify jurisdiction using real time crime data and how it is implemented.



**Target:** The majority of the Health People Goals are met by greater than half of the region's population



#### Baseline: 4 out of 10

**Source:** U.S. Department of Health and Human Services and MWCOG Community Health Status Indicators for Metropolitan Washington 2009.

Healthy People 2010 Goal Measures	Percent of Regional Population Residing in a Jurisdiction
	Achieving the Goal
Infant mortality	10.4%
Breast Cancer	0%
Colon cancer	24.4%
Lung Cancer	46.7%
Coronary disease	63.7%
Stroke	67%
Injury	70.6%
Motor Vehicle Deaths	49.7%
Homicide	51.5%
Suicide	0%
Score	4 out of 10

Source: Community Health Status Indicators for Metropolitan Washington, 2009.

Health in a regional context spans a wide variety of areas ranging from public safety to nutrition. The quality of our region's health is critical for ensuring equity and prosperity. There are a vast number of possible ways to measure regional health. This target uses the Healthy People goals from the US Department of Health and Human Services to provide a broad spectrum snap shot of health. Healthy Communities goals are set once a decade.

In 2009, MWCOG's Public Health department released a report detailing the National Capital Region's attainment of these goals. This report found that our region attained 40% of all goals. We fell short on infant mortality, breast cancer, colon cancer, lung cancer, motor vehicle deaths, and suicide.

