## Chapter 10
### Transportation, Public Works and Environmental Services

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District Department of Transportation

Transportation Vision

The overarching goal for transportation in the District is as follows:

Develop and maintain a cohesive sustainable transportation system that delivers safe, affordable, and convenient ways to move people and goods—while protecting and enhancing the natural, environmental and cultural resources of the District. The District is committed to achieving an exceptional quality of life in the nation’s capital through more sustainable travel practices, safer streets and outstanding access to goods and services. Central to this vision is improving energy efficiency and modern mobility by providing next generation alternatives to single occupancy driving in the city.

A well-balanced and multi-modal transportation system is integral to the city’s efforts to sustain and enhance the quality of life and key to its future economic growth and role as the nation’s capital. Achieving such a system requires integrating land use and transportation and implementing a range of improvements that enhance connectivity, livability, and vitality.

Transportation System Overview

As the nation’s capital and the center of one of the country’s fastest growing metropolitan areas, the District faces increasingly complex mobility challenges as it plans for its future. While the city still retains a large share of the region’s jobs, the region itself continues to decentralize, creating longer commutes, increased peak period congestion, and poor air quality. Within the District, the major surface transportation arteries are highly congested during morning and evening commuting periods, additionally, some routes are expected to reach capacity in the near future. Funding to maintain the existing transportation system, let alone expand the system to meet increased demand, is severely constrained.

However, these challenges also present opportunities. The District has one of the most extensive mass transit systems in the country, densities that support and promote transit use, a growing network of bicycle and pedestrian trails, and a unique system of radial boulevards that distinguish it from all other American cities. Washington’s gracious avenues, bridges, and parkways are part of its history and a defining element of its urban form and character. With appropriate strategies in place, these transportation assets can enhance the quality of life in the city and increase the District’s attractiveness while still performing their essential function to move people and goods.

<table>
<thead>
<tr>
<th>Transportation Asset</th>
<th>Description</th>
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<tbody>
<tr>
<td>Roadway System</td>
<td>3950 lane miles</td>
</tr>
<tr>
<td>Bridges</td>
<td>214 (199 vehicle, 15 pedestrian)</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>1400 miles</td>
</tr>
<tr>
<td>Bicycle Routes</td>
<td></td>
</tr>
<tr>
<td>On-road bicycle lanes</td>
<td>50 miles</td>
</tr>
<tr>
<td>Signed routes</td>
<td>64 miles</td>
</tr>
<tr>
<td>Off-road trails</td>
<td>56 miles</td>
</tr>
<tr>
<td>Bike Share Stations</td>
<td>100</td>
</tr>
<tr>
<td>Public Space car share spots</td>
<td>86</td>
</tr>
<tr>
<td>Tree Spaces</td>
<td>147,261</td>
</tr>
<tr>
<td>Alleys</td>
<td>355 miles</td>
</tr>
<tr>
<td>Rail Mass Transit (Metrorail)</td>
<td>38 miles (total for region=106 miles)</td>
</tr>
<tr>
<td></td>
<td>40 stations (total for region = 86)</td>
</tr>
<tr>
<td>Bus Mass Transit (Metrobus)</td>
<td>Service on 298 miles of road (total for region=1,442 miles)</td>
</tr>
<tr>
<td>Circulator</td>
<td>Service on 34.99 miles, ridership for 2010= 4,863,318</td>
</tr>
<tr>
<td>Streetcar</td>
<td>2.52 Miles (still under construction)</td>
</tr>
<tr>
<td>Airports*</td>
<td>Two international airports (Washington Dulles International and Baltimore-Washington International) and one domestic (Reagan National)</td>
</tr>
<tr>
<td>Railroads</td>
<td>27.2 miles of rail line (Amtrak passenger rail, MARC and Virginia Railway Express commuter rail, and CSX and Norfolk Southern freight rail). Union Station, w/in walking distance of the Capitol, provides connections to bus and rail transit along with shared cars, rental cars and sightseeing services.</td>
</tr>
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*Dulles and BWI International Airports are located outside of the District but serve the metro DC region.
The city is also taking steps to augment and sustain its existing transportation network. It is expanding transit via limited stop bus services and streetcars to areas not served by Metrorail. It is replacing the Anacostia River bridges, including the South Capitol and 11th Street bridges, to improve mobility and roadway operations and to support economic development and urban beautification goals. It is improving sidewalks and bicycle routes across the District. Table 10.1 summarizes the transportation assets of the District.

**Program Activities**

The District Department of Transportation (DDOT) is in the process of developing an Action Agenda that outlines its programmed investments, policy objectives and actions, and benchmarks for achievement over the coming years. The program is built upon solid understanding of our infrastructure needs and capacities and the critical investments necessary to move forward into the next decade.

**Capital Planning**

The District’s capital program (Transportation Improvement Plan) is based on five key principles:

1. Safe passages - ensuring all users can safely move with comfort and efficiency
2. Sustainable Living – moving more users in the same space and improving environmental quality
3. Capital assets - fixing first the infrastructure we have means lower costs in the future
4. Prosperous places - strengthening the economic competitiveness and success of our communities through equity and job growth
5. Firm foundation - core programs ensure a strong base for the organization

**Safe Passages**

The District Department of Transportation places a high priority on safety. Through improvements to our programs, partnerships and physical infrastructure, we are aiming to drastically reduce transportation-related injuries and fatalities.

- Establish designs and policies that accommodate and protect all modes and users
- Reduce injuries and fatalities through enforcement
- Utilize emerging, effective technology for system performance
- Educate all users to respect and protect one another

**Sustainable Living**

DDOT’s mission is to move people and goods as efficiently and cleanly as possible. Often this means finding ways to move more people, not vehicles, in a fixed right-of-way. DDOT has, and will continue to, invest in initiatives that reduce toxins in the air and improve overall air quality.

- Provide additional transit alternatives
- Expand facilities and technologies for non-auto travel
- Minimize impervious surfaces in the right of way and mimic natural systems to better manage stormwater runoff
- Improve the health and expanse of District tree canopy
- Support urban infill to encourage smart growth

**Capital Assets**

DDOT has over $44 trillion worth of infrastructure in the city. The Agency’s right of way real estate makes up nearly one-third of the city’s land area. Like any homeowner, the city is best served when sufficient investments are made to preserve this tremendous, and expensive, asset.

- Improve the quality and quantity of DDOT’s web-based information and general data collection
- Accelerate construction to reduce project costs and overall traffic impact
• Partner with neighborhood stakeholders to help protect and preserve assets
• Prolong the life of assets, choose durable materials in new construction, and reuse materials as possible when reconstructing

**Prosperous Places**
While DDOT’s projects improve the safety, efficiency and condition of the transportation system, DDOT is proud that many of our projects also go above and beyond direct infrastructure improvements. In many instances throughout the city, the investment in roads, sidewalks and streetscape has become the catalyst for economic development throughout the corridor.

• Utilize infrastructure investments to strengthen local retail and employment districts
• Minimize construction impacts on local businesses
• Encourage job growth
• Coordinate work with local utility companies

**Firm Foundation**
DDOT’s core programs are the foundation on which DDOT is able to accomplish its mission. These are the programs that allow us to research and analyze innovations in the transportation field, improve customer service and outreach among other things.

• Train the workforce of the 21st Century
• Provide exceptional customer service, responsiveness and transparency
• Reform business practices to reflect sustainability principles
• Enhance research program

**Title VI: Ensuring Equity in the Transportation Program**
In implementing its transportation program, DDOT assures that no person shall on the grounds of race, color, national origin, or gender, as provided in Title VI of the Civil Rights Act of 1964 and related statutes be excluded from participation in, or be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which DDOT receives federal financial assistance. In order to comply with Title VI and meet the needs of an increasingly diverse population, DDOT gives special consideration to populations protected under Title VI in its transportation program. DDOT has identified a group of employees to serve as Title VI coordinators. The Title VI Coordinators work with the executive leadership, planners, reviewers, and engineers at all stages of planning and project development. The Title VI Coordinators also help identify essential agency documents that are translated into twenty-one languages and made available to the public. DDOT emphasizes proactive and ongoing public involvement targeted toward traditionally underserved communities.

No cost translation service is provided to the District’s limited-English (LEP) proficient and non-English (NEP) proficient residents; compromising nearly 7% of the population. Annual language access training is provided to all staff that may have regular contact with the public. This ensures that DDOT’s staff does not permit language to serve as a barrier to public services and community input. Every three years, DDOT is required to update its Title VI compliance goals to the Federal Highway Administration and the Federal Transit Administration. This report requires DDOT to use data from the most recent United States Census, and the American Community Survey to identify its NEP and LEP population, the languages spoken at home, and the geographic concentration of the NEP and LEP population. DDOT then uses this information to develop outreach programs and identify the resources necessary to serve the NEP and LEP population.

In promoting equity considerations, DDOT is also committed to Environmental Justice and uses analyses and impact studies to identify and avoid disproportionately high or adverse human health and environmental effects of its program, policies and activities on minority and low-income populations.
Transforming Corridors through Great Complete Streets

Our avenues and boulevards are much more than simple transportation routes. They are a legacy of the 1791 L’Enfant Plan and are still one of the city’s most distinctive features. They were designed to be beautiful corridors lined with distinctive buildings and affording dramatic vistas. While some of the city’s radial corridors do serve this function, many now also handle hundreds of thousands of private vehicles each day as well as bicycles, trucks, and buses.

Different corridors in the city serve different functions. Some, like New York Avenue, carry heavy truck and commuter traffic. Others have wide sidewalks that provide a safe and pleasant environment for pedestrians. Still others were once vital shopping streets or streetcar lines that today have lost their neighborhood-serving activities and are checkered by drive-through and auto-oriented uses. As the gateways to our communities, the District’s corridors should once again become the centers of civic and economic life for surrounding neighborhoods and serve as vital transportation corridors. The challenge facing the District as it plans for and reinvests in its corridors is to balance the various transportation modes, tailor its transportation strategies to recognize the function of each major street and foster economic growth.

Improvement of the city’s corridors—particularly public space along city streets—is an important part of the ongoing “Great Streets” initiative. Great Streets applies a multidisciplinary approach to corridor improvement, comprised of public realm investments, land use plans, public safety strategies, and economic development assistance. Among other things, the initiative includes the construction of new sidewalks, lighting, signage and crosswalks. Such improvements are being used to leverage further investment in landscaping and public space by the private sector.

The Great Streets Initiative is a partnership of the District Department of Transportation (DDOT), the Deputy Mayor for Planning and Economic Development (DMPED), the Office of Planning (OP), and the Department of Parks and Recreation (DPR), among many others. The program concentrates on the following six designated corridors:

- Georgia Avenue NW and 7th Street NW from Eastern Avenue to Mt. Vernon Square
- H Street NE and Benning Road NE from North Capitol Street to Southern Avenue
- Nannie Helen Burroughs Avenue NE from Kenilworth Avenue to Eastern Avenue
- Minnesota Avenue NE/SE from Sheriff Road NE to Good Hope Road SE
- Pennsylvania Avenue SE from the Capitol complex to Southern Avenue
- Martin Luther King Jr. Avenue SE and South Capitol Street from Good Hope Road to Southern Avenue.

The progress of the Great Streets projects continues to move forward and the status of each corridor varies from final stages of planning on sections of Georgia Avenue to construction on Pennsylvania Avenue SE to completion of work on H Street/Benning Road, NE.

Transportation Choices: Balancing Mobility and Accessibility

The District has one of the most balanced transportation systems in the country. It is ranked second only to New York City in terms of the percentage of residents who take public transportation, and second only to Boston in the percentage who walk to work. According to the 2000 U.S. Census, thirty-seven percent of the District’s households have no automobile. Providing transportation choices that move away from the single-occupant car towards more efficient and environmentally friendly options such as walking, bicycling, and public transit is a key goal of the Department of Transportation.
Transit Accessibility
The District and its region are served by the second largest rail transit system and the fifth largest bus network (measured by ridership) in the United States. The bus and rail systems are operated by the Washington Metropolitan Area Transit Authority (WMATA), which provides service throughout the Washington region.

WMATA was created in 1967 by an Interstate Compact to plan, develop, build, finance and operate a balanced regional transportation system in the National Capital area. Construction of the planned 103-mile Metrorail system began in 1969 and was largely funded by the federal government. Currently, all operating and most capital costs of the system are borne by the compact signatory jurisdictions of the District, Maryland, and Virginia; and policy decisions are made by members representing these jurisdictions. The first phase of Metrorail began operation in 1976 and was completed in early 2001. In 2004, three new stations opened—two extended the Blue Line east of the Beltway and the first infill station (New York Avenue) opened on the Red Line. The system now totals 106 miles, 38.3 miles of which are located within the District itself. Close to half of the stations on the system -- 40 of 86 -- are located in the District. The Metrorail system is shown in Map 10.1. While much of the city is within ½ mile of a station, some areas such as Georgetown, the New York Avenue corridor, and Bolling Air Force Base, are not.

Map 10.1. Metrorail System

As the core of the region and the hub of the Metrorail system, much of WMATA’s transit use centers on the District. In April 2009, the total average weekday boardings at all Metrorail stations was 781,429. Nearly 57 percent of these boardings occurred at District stations. In-bound metrorail trains are often filled to capacity in the suburbs in a.m. peak periods, leaving little space for District residents to board. Downtown station platforms are congested. The District and WMATA are studying the feasibility of underground pedestrian connections between Gallery Place/Metro Center and Farragut North/Farragut West stations to relieve overcrowding.

The WMATA Core Capacity Study investigated options to increase capacity of the system, but there are several obstacles to making long-term, large-scale improvements. For instance, the Orange and Blue Lines share a track through downtown Washington, greatly limiting the capacity of both lines. Likewise, the interlinking of the Green and Yellow Lines between L’Enfant Plaza and the Convention Center limits additional peak period service on either of those lines. Adding tracks in these areas would require extraordinary costs and service disruption. In 2006, the District funded a demonstration project to extend the Yellow Line to Fort Totten station during off-peak hours, doubling service to Green Line stations in the District north of Mount Vernon Square/Convention Center. The project’s success led to the service cost being regionalized in 2008.

Because of the very high cost of building entirely new Metrorail subway lines within the District, the city is instead proposing better connections to and among the various spokes of the Metrorail system with investments in surface transit. These improvements include bus rapid transit, light rail transit and improvements to the Metrobus system. In addition the city is working with WMATA to make more efficient use of existing infrastructure through measures such as increasing train lengths from six cars to eight cars. The increased train length adds about one-third more capacity to each train, helping to alleviate short-term congestion problems in the system. This technique does not require any changes to railroad or station infrastructure, only upgrades to the power system and the purchase of additional rail cars.
WMATA also operates the Metrobus regional bus service. The buses run approximately 168,670 miles on an average weekday making about 431,000 passenger trips and 15,087 bus trips. Approximately 55 percent of these trips are within the District. Throughout the metropolitan area, Metrobus operates on 1,442 miles of roadway. Within the District, Metrobus operates 58 major bus lines on 298 miles of roadway or 27 percent of the roadway system. Average weekday ridership on these lines ranges from as few as 150 persons to over 14,000 persons. Total ridership in the District is over 236,000 per month.

WMATA faces complex and unique funding and budgetary challenges to maintain and operate the transit system. Research shows that over half of the total capital spending for other transit systems comes from dedicated funding sources of one kind or another. However, WMATA receives no dedicated funding from such sources. For operating costs, other transit systems obtain about one-third of their total funding from dedicated sources. For WMATA, it is less than two percent. Most of WMATA’s operating budget comes from direct subsidy payments from cities and counties in the region, including the District. The amounts vary from year to year.

WMATA needs a stable, reliable, and dedicated revenue source to take the pressure off passenger fares and the local governments’ annual subsidy. The District will continue to actively collaborate with regional jurisdictions to pursue a dedicated and more stable revenue stream, such as a sales tax. Representative Tom Davis of Virginia authored a bill that provided $1.5 billion in Federal payments over ten years to offset the large cost of capital maintenance of the system, in exchange for two Federal board members to be added to the WMATA Board of Directors. The bill became law in 2009 and the WMATA Compact was amended to allow this change to occur. The Federal government has yet to appropriate their payment.

The District is served by a number of regional bus carriers in addition to Metrobus. In Maryland, these include MTA Commuter Bus, Dillon, Eyre, and Keller Transportation. In Virginia, these include Lee Coaches, National Coach, Quick’s, Loudoun County Commuter Bus, and PRTC OmniRide. A number of private bus services also provide circulation within the District for schools, hospitals, universities, and other areas or attractions. The District is also served by MARC and Virginia Railway Express commuter train service.

In the late 1990’s the District of Columbia began exploring ways to increase surface transit options within the District. By 2003, the District of Columbia Downtown Circulator Implementation Plan was developed and began operating as a partnership between the District Department of Transportation (DDOT) and non-profit organization known as District of Columbia Surface Transit, Inc. (DCST). Initially developed to help reduce downtown traffic congestion, high parking demand and provide complementary transit service to Metrorail, Metrobus, and other regional transit systems, the DC Circulator started with routes that crossed the city North/South and East/West. Growing demand for the service has led to an expanded system that now includes five (5) routes.

The first phase of the DC Circulator started service in July 2005 with 29 new buses on two routes linking Union Station with the Washington Convention Center and Georgetown via K Street, as well as connecting the Convention Center to the Southwest Waterfront through Downtown and the National Mall. A third route was added in March 2006 to expand circulator service around the National Mall. In April 2009, two more routes and 14 more buses were added to the system serving Capitol Hill, Capitol Riverfront, Union Station, Adams Morgan, Woodley Park, Columbia Heights, and the 14th Street NW corridor. The Dupont Circle-Georgetown-Rosslyn bus route is the newest route and was added in late August 2010. The city will also be expanding services to Ward 8 in 2011. The Circulator fleet consists of 49 vehicles as of September 2010.

The District continued to explore ways to increase surface transit options and in 2005 the District of Columbia Alternatives Analysis (DCAA) was completed. The purpose of this multi-corridor, multimodal study of transportation alternatives was to define a network of efficient transit network that better connected District neighborhoods to destinations in the District, as well as, Metrobus and Metrorail. Recommendations from the study identified corridors in the District that would have investments of streetcar, bus rapid transit, and local bus enhancements. By 2006, plans for streetcar investments had begun for the Anacostia neighborhood. In April 2010, DDOT completed an update to the 2005 plan called DC’s Transit Future System Plan. The purpose of the transit investments
outlined in the system plan is to enhance mobility for city residents, accommodate continued growth in population and employment, improve access to jobs, connect neighborhoods and activity centers, and support sustainable economic growth for the District of Columbia. This plan detailed a full 37 mile proposed streetcar network. The streetcar system will consist of small rail cars that operate along in-street tracks, at grade level, and mixed with automobile traffic. High ridership bus corridors, such as Georgia Avenue (70’s route series), Wisconsin Avenue, Massachusetts Avenue, Pennsylvania Avenue (30’s route series), 16th Street NW (S route series), H Street/Benning Road (X route series), and Florida Avenue/U Street (90s route series) were targeted for immediate investments of limited bus stop services (Metro Express) and between 2007 and 2010 the District launched the 79, 37, 39, S9, and X9 bus routes with limited stop service operated by WMATA. The Neighborhood Circulation Study was completed in 2009 and identified additional methods for expanding surface transit options for people that live, work, and visit the District of Columbia.

Bicycle Access, Facilities, and Safety

Bicycling has long been a part of the transportation mix in the District. In the late 19th and early 20th centuries, bicyclists, pedestrians, buggies, and streetcars all shared District streets. The District’s interest in bicycling as an alternative to motorized transportation grew in the 1970s in response to the energy crisis and the first District Bicycle Plan was adopted in 1976.

The use of bicycles for transportation and recreation is increasing within the District. Between 1990 and 2000, according the U.S. Census, bicycle commuting grew by 55 percent, from a 0.75 percent share to a 1.16 percent share of all District-based work trips, and 2.19 percent in the 2009 American Community Survey. The 2005 Bicycle Master Plan calls for 5% of all work trips by 2015. Currently, the District has 50 miles of bike lanes, 54 miles of off-road bike paths, and 64 miles of signed bicycle routes. The city is also working to improve bicycle connections through parks and green spaces. While existing conditions provide a firm foundation for bicycling, many parts of the city are not as bicycle-friendly as they should be. Many parts of the city have no bicycle facilities at all and many workplaces and other destinations have no facilities for storing or locking bicycles.

Safety is another big concern. On average there were 436 reported bicycle crashes in 2010. Between 1992 and 2001, close to one-third of all fatalities from motor vehicle crashes in the District were pedestrians or bicyclists as compared to about 20 percent nationally and 27 percent for large urban areas.

In 2003, the District Department of Transportation estimated the Bicycle Level of Service (Bicycle LOS) along 400 miles of major collector and arterial streets in the District. The Department of Transportation evaluated roadway lane and shoulder width, speed limit, pavement condition, and on-street parking data. The analysis found that about 70 percent of the study network received below average Bicycle LOS grades. The Bicycle Master Plan includes many recommendations to improve bicycle facilities and infrastructure and should be consulted for more detail.

Pedestrian Access, Facilities, and Safety

The District’s population density, interconnected grid of streets, wide sidewalks, and renowned park system, has long contributed to a favorable environment for walking. In 2000 nearly 31,000 District residents (12 percent of the city’s labor force) walked to work. The District has more than 1,600 miles of sidewalks. However, there are still streets without sidewalks and a backlog of sidewalks needing repair. Pedestrian safety remains a big challenge. There are roughly 700 collisions between cars and pedestrians in the city each year.

Improvements to pedestrian facilities enhance the quality of the walking and public transit environments and foster greater use of both modes. Improvements should focus on reductions in the number and severity of pedestrian-vehicle conflict points, clarified pedestrian routing, widened sidewalks, and improved
The District’s roadway system consists of 1,153 miles of roadway, 229 vehicular and pedestrian bridges, and approximately 7,700 intersections. Approximately 17 percent of these intersections are signalized, with about one in three signalized intersections located within the downtown area. The roadways in the District are categorized by function, ranging from interstates and other freeways, which provide the highest degree of travel mobility, to local streets, which provide the highest level of access to land uses. Increases in funding for street maintenance since the mid-1990s have allowed the District to improve the condition of its roadway pavement. The District regularly monitors and rates the condition of its roadways and bridges.

Traffic congestion on the District’s roadway network occurs primarily on the radial principal arterial roadways. The flow of traffic is greatly influenced by north-south movements along the I-95 corridor feeding into I-295 and I-395. These highways carry the heaviest daily traffic volumes in the District with an average of approximately 193,000 daily trips on I-395 and 80,000 on I-295. In addition, the limited number of crossings over the Potomac and Anacostia rivers generates higher volumes of traffic at these gateways than their counterparts in the northern portion of the District.

Universal Access / Addressing Special Needs

As the baby boom generation ages into its senior years the demands upon multi-modal transportation options are ballooning. An estimated 85% of Americans living to full life expectancy will experience some sort of permanent disability sometime in their lifetime. The number of Americans over the age of 80 will rise from 61 million in 1995 to 320 million in 2050.

In the 2000 census 51 million Americans reported having a disability, or 18 percent. Among these 35 million, or 12%, reported having a severe disability. For the District 15% of the population over 5 years old was counted as disabled, which represents over 67,000 people.

To promote a high quality of life for seniors and persons with disabilities, the city intends to engage a range of measures focused on affording independence and choice:

- Using technology to extend intersection crossing times to accommodate pedestrians with slower walking speeds.
- Providing well lighted, safe pedestrian paths along DC sidewalks, including compliant curb ramps at over 61,000 locations, and accessible drop off and pick up areas.
- Providing convenient and fully accessible bus stops for the 3,349 active bus stops in the District (note: 700 new shelters have been installed over the past year).
- Employing technology to improve accessibility to transit services by persons with disabilities and to enhance and attract greater Metro bus ridership; including such options as advance notice systems and integrated GPS based bus tracking systems.
- Supporting and expanding home delivery services and home based opportunities.
- Implementing Accessible Pedestrian Signal devices at all signalized intersections.

To move forward with this vision DDOT has outlined a transition plan to comply with the Americans with Disabilities Act and to safeguard the right to access for persons with disabilities.
Making Multi-Modal Connections

Multi-modal connections refer to the links between different modes of travel, such as walking, cycling, transit (rail and bus), private cars, taxis, commuter rail and intercity passenger rail. Enhancing the places where these connections occur facilitates transfers between the different modes.

Metrorail stations and their environs can be enhanced to allow for more effective bus and streetcar transfers, particularly as streetcars, limited bus stop (Metro Express) services become more common. Improved pedestrian amenities, increased bicycle parking, bike share facilities and more visible parking for car-share vehicles at Metrorail stations can enhance connections.

Intercity and commuter rail connections are also critical to creating an efficient multimodal transportation system. Amtrak regularly runs trains into and out of Union Station, providing service along the northeastern rail corridor as well as to points west and south. The District’s Union Station ranks third in Amtrak station passenger volume, after Philadelphia and New York City. The District is currently served by two commuter rail systems - Maryland Commuter Rail (MARC), which provides service from Maryland, and the Virginia Railway Express (VRE), which provides service from Virginia. These systems provide up to 40,000 trips in and out of Union Station on a typical weekday on 96 trains per day. Commuter ridership has increased substantially in recent years, and continued growth of both systems is expected.

The expansion of these intercity and commuter rail services, coupled with Metrorail and Metrobus service, will increase accessibility and enhance regional transportation options. A number of key facilities on the rail system need improvements to accommodate future ridership and enable intermodal transfers. Increased capacity at Union Station and L’Enfant Plaza is also needed to accommodate growing numbers of commuter rail passengers on MARC and VRE.

In addition, regional commuter bus services originating in Maryland and Virginia terminate at approximately 65 stops in the District. These services are growing. The District is reviewing stop locations to minimize traffic conflicts while providing additional options for commuters to make intermodal connections.

Finally, taxis play an important role in the District’s multi-modal transportation system. They provide an alternative and convenient means of travel throughout the District. In 2008, the District abandoned the old zone-based fare system and now requires all taxis to use meter-based fares as is common in most other cities.

Security and Emergency Preparedness

Transportation has always played an important role in Washington’s security by providing a means of evacuation as well as routes for emergency and relief services. The city must continue to plan for and safeguard its transportation system, protecting its value as a major component of our urban infrastructure and economy.

In light of the events of September 11, 2001, every major American city has embarked on emergency preparedness and traveler information systems designed to inform citizens how to respond in the event of an emergency. As the Nation’s Capital, this is a critically important issue for the District.

Should the District face an emergency situation, the transportation system provides the means to evacuate residents, workers and visitors, as well as support the movement of emergency service response teams. Depending on the nature of an incident, persons may need to rely on car, train, bus, bike, and/or walking. Maintaining and planning for a well-functioning system that can adapt to the needs of an incident is essential. Given the District’s reliance on the regional transportation network in the event of an evacuation, close coordination with partners in Maryland and Virginia is also required.
The District’s Department of Transportation is the lead District agency for all regional and federal emergency transportation coordination and activities within DC. Another key agency is the District’s Homeland Security and Emergency Management Agency (HSEMA), which partners with District agencies, businesses and communities to help plan for management of an emergency event. There is also increasing coordination between regional departments of transportation and other agencies, primarily through the Metropolitan Washington Council of Governments.

The region has identified 19 corridors radiating from downtown Washington as emergency event/evacuation routes. Each of the routes extends to the Capital Beltway (I-495) and beyond. Customized roadway signs allow for easy identification of direction; outbound signs direct motorists to I-495 in Maryland and Virginia, and inbound signs show images of monuments. Evacuation routes are also identified by special street name signs, which include the red and white District flag and evacuation bars placed above the signs.

In the event of an evacuation of the central business district, Pennsylvania Avenue, NW, between Rock Creek Park and the U.S. Capitol serves as the dividing line for routes. None of the evacuation routes cross each other, and no vehicles would be permitted to cross Pennsylvania Avenue. Traffic signals would be timed to move traffic away from the incident area. In addition, police officers would be present at 70 critical intersections on the evacuation routes within the District to expedite the flow of traffic and prevent bottlenecks. There are also six bike trails identified that could be used by cyclists or pedestrians in the event of an evacuation.

Although the District is better equipped to handle an emergency than in the past, additional planning is needed in order to better prepare the region’s transportation network and emergency management agencies. Not only should the District continue to plan for evacuations at the local level and provide the necessary information to the public, it must also improve coordination with its regional partners and take advantage of new technologies, as well as federal support, in preparing for emergencies.

As home to the largest concentration of federal agencies and facilities in the country, the District and the federal governments must continue to coordinate extensively to ensure the District’s security and mobility needs. Over the past decade, several of the District’s streets have been closed by the federal government to protect the White House and the U.S. Capitol Building. These street closures have disrupted mobility for pedestrians and vehicles, requiring extensive re-routing of vehicular travel through downtown and Capitol Hill. This has led to delays for residents, workers, tourists, and First responders.
Department of Motor Vehicles

The Department of Motor Vehicles (DMV) is a combined municipal and state Agency. The mission of DMV is to provide excellent customer service and to promote public safety by ensuring the safe operation of motor vehicles. The DMV provides the following core services to residents and non-residents:

- Provides ticket processing, noticing, hearing and hearing support services to residents and non-residents, in order to render legally sound decisions on parking, photo and moving violations, and to ensure proper processing of violation and fine payments for those infractions.
- Provides certification and inspection services to residents, businesses, and government entities so they may legally park, drive and sell their vehicles in the District.
- Provides driver certification and identification services to residents to ensure they have the proper credentials to reflect identity, residence and driving qualifications so they may legally operate their vehicles.

Through these core functions, the DMV provides service to approximately 460,000 licensed drivers and identification card holders (out of a population of 600,000) and 275,000 registered vehicles at three service centers. The Agency conducts adjudication services and collects ticket payments for more than 2.5 million tickets each year. DMV also conducts over 200,000 annual vehicle inspections. DMV interacts with DC residents and non-residents, with an average of 3,300 daily customer contacts—more than almost any other District government agency.

Services

Driver Licensing

The number of active driver licenses fluctuates throughout the year based on our transient population and the number of licenses that are expired or suspended/revoked at any given time. In FY08, the number of active drivers on September 30th was 347,096. In FY10, this number increased by less than 1% to 347,402. The data that drives the processes and workload of DMV is related to the number of yearly driver license transactions. That data, which is highlighted in Figure 10.1, reflects the District’s increased population growth in the FY11 projection. Ensuring residents can safely maneuver on the District roadways continues to be a primary goal of the Agency.
Identification
Unlike driver licenses, the number of active identification (ID) cards fluctuates widely throughout the year based on the number of individuals who can no longer safely drive due to medical conditions or age. The number is also based on the number of licenses that are expired or suspended/revoked at any given time since many of these individuals must obtain an ID card for identification purposes. In FY08, the number of active ID cards on September 30th was 125,065. In FY10, this number decreased by 5% to 118,489. The data that drives the processes and workload of DMV is related to the number of yearly ID card transactions. That data, which is highlighted in Figure 10.2, reflects the District’s aging population for the FY11 projection.

Vehicle Inspection
The number of vehicle inspections conducted throughout each year is based on the number of new residents registering vehicles and the number of vehicles which fail the inspection. This data, which is highlighted in Figure 10.3, reflects the elimination of the passenger safety inspection in FY10. All vehicles must have a valid emission inspection prior to registration, and for hire and commercial vehicles must also have a safety inspection.

Vehicle Registration
Similar to driver licenses, the number of active vehicle registrations fluctuates throughout the year based on our transient population and the number of registrations that are expired or suspended at any given time. In FY08, the number of active registrations on September 30th was 278,217. In FY10, this number decreased by 1% to 275,043. The data that drives the processes and workload of DMV is related to the number of yearly vehicle registration transactions. That data, which is highlighted in Figure 10.4, reflects the District’s decreased reliance of automobiles in the FY11 projection. (Note: The transaction data also reflects the option of a one or two year registration period.)
Ticket Issuance and Adjudication
Although DMV does not issue tickets, the number and quality of ticket issuance (parking, moving and photo) has a direct impact on the Agency’s adjudication function. All tickets believed to be in error by a customer must be adjudicated through DMV for consideration of penalty reduction or ticket dismissal. Throughout the years, the number of tickets issued and adjudicated has steadily increased as the District focused more on enforcement as a mechanism to ensure parking/vehicle compliance and safety. Table 10.2 and Figure 10.5 show the overall correlation between increased ticket issuance to increased ticket adjudication. Additionally, DMV collects an average of $142 million per year in ticket revenue.

Table 10.2. Tickets Issued: 2008-2011*

<table>
<thead>
<tr>
<th># of Tickets Issued</th>
<th>FY 2008</th>
<th>FY 2009</th>
<th>FY 2010</th>
<th>FY 2011*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking</td>
<td>1,700,614</td>
<td>1,796,356</td>
<td>1,788,289</td>
<td>2,015,157</td>
</tr>
<tr>
<td>Moving</td>
<td>112,481</td>
<td>112,105</td>
<td>149,706</td>
<td>131,379</td>
</tr>
<tr>
<td>Photo</td>
<td>408,461</td>
<td>639,756</td>
<td>588,647</td>
<td>477,570</td>
</tr>
<tr>
<td>Total</td>
<td>2,221,556</td>
<td>2,548,226</td>
<td>2,526,642</td>
<td>2,624,106</td>
</tr>
</tbody>
</table>

* Projected

Accomplishments
DMV has implemented a number of cost-savings and performance initiatives in the past two years. In FY10, the Agency implemented the ability of customers to submit adjudication requests online and receive hearing decision letters online through a ticket customer account service. DMV also begin offering driver records and change of address transactions online. The increased use of mail and online services helps decrease in-person volume at DMV facilities; thereby, allowing capacity for those customers who truly must visit in person to complete their transactions. Although there has been a 57% increase in online licensing/registration service, the online services are still underutilized due to customers’ lack of Internet access and heavy reliance on cash transactions.

In FY10, DMV’s budget and policy initiatives were extremely innovative and challenging. To achieve a savings of over $1.5M, the Agency eliminated safety inspections for passenger vehicles and reduced the weekly operational hours of the Inspection Station from 68 to 40 hours. DMV eliminated in person registration vehicle renewals in order to accommodate the closure of the Brentwood Service Center for a savings of $1.6M. The Agency also revamped the Fleet Adjudication Program for companies with ten or more fleet vehicles.

Thus far in FY11, DMV conducted senior outreach sessions at DC wellness centers to encourage the use of online services and provide senior related information. The Agency also implemented an online traffic school for customers seeking to have points removed or those who need a refresher on safe driving requirements. In an effort to streamline services, DMV is also processing surrender tag refunds using an automated method and allowing residents to surrender tags online. Additionally, the online document verification check, combined with the online fillable forms, allows new residents to ensure they have the necessary documents prior to visiting the DMV; this service helps eliminate multiple customer visits for one transaction.
Department of Public Works

The Department of Public Works (DPW) provides municipal services in two distinct program areas: environmental services/solid waste management and parking enforcement. Both contribute to making District streets and public spaces clean, safe, attractive and accessible.

DPW's Solid Waste Management Administration performs a number of daily operations including trash, recycling and bulk collection, sanitation education and enforcement, graffiti removal, public litter can service, fall leaf collection, and street and alley cleaning. SWMA employees also are the backbone of the District’s snow and ice removal program.

DPW's Parking Enforcement Management Administration is responsible for enforcing the District's on-street parking laws, removing abandoned and dangerous vehicles from public and private property, and operating the District’s impound lot. Approximately 200 parking officers monitor 17,000 meters and 3,500 blocks of residential zoned parking. In addition to routine enforcement, the Parking Services Administration is charged with booting and towing operations and with removing abandoned vehicles from public and private property.

Behind the scenes, DPW's Fleet Management Administration supports municipal operations by procuring, fueling and maintaining thousands of District government vehicles, from sedans to heavy equipment. Fleet Management is also responsible for purchasing environmentally friendly, alternative-fuel vehicles (AFV) for the city.

Visit DPW’s Website:  www.dpw.dc.gov; Facebook:  http://www.facebook.com/pages/DC-Department-of-Public-Works/99012516086;  Twitter: http://twitter.com/#/dcdpw

DPW Mission

The mission of the Department of Public Works (DPW) is to provide environmentally healthy municipal services that are both ecologically sound and cost effective, including:

- Immaculately groomed neighborhoods
- Accessible, safe parking, and
- Top quality fleet support for all District agencies

DPW Vision

We, the world-class professionals of the Department of Public Works are proud of the excellent service we provide. Our services are essential to the fabric and aesthetics of our community. We are well-trained and masters of our craft consistently delivering the highest quality service. In every interaction -- with citizens and each other -- we use respectful communications and model superior customer service behaviors.

Because our life blood is customer satisfaction, we anticipate constituents’ needs and consistently measure our performance to ensure we exceed expectations. We use state-of-the-art technology to quickly address customer concerns and reduce the percentage of repeat calls. Customers are pleased and compliment our responsive, environmentally-friendly approach to ensure public safety and enhance our city’s quality of life. Customer loyalty is further assured by the accessibility and interaction they have with Department managers and executives.
Our leadership team offers timely feedback and helpful follow-up to consistently deliver results and creatively turn errors into teaching/learning moments. Team members collaborate to leverage strengths and overcome barriers to productivity, as well as customer and employee satisfaction. They ensure that employees have the resources, cross-training, developmental opportunities, and support required to reach their full potential.

As a result, DPW is recognized as the “Preferred Choice” service provider and employer -- the world-class benchmark against which other jurisdictions are measured.

**DPW Strategic Goals: 2011-2014**

**Goal 1:** By Fiscal Year 2014, DPW will have significantly upgraded its workforce skills and have a pool of skilled managers and supervisors who are able to lead the organization according to best-in-practice management methods and techniques.

**Goal 2:** By Fiscal Year 2014, DPW will re-engineer its waste disposal strategy to reduce the District’s waste stream footprint, deploy useful and alternate forms of energy and create new revenue streams.

**Goal 3:** By Fiscal Year 2014, significantly reduce greenhouse emissions by ensuring 100% of the District of Columbia’s supported fleet is converted to fuel efficient vehicles offering the highest average of miles-per-gallon.

**Goal 4:** By Fiscal Year 2014, DPW will upgrade all its equipment, technology, infrastructure and facilities to house appropriate functions near or within the DPW complex so employees have an optimally productive and safe workplace.

**Goal 5:** By Fiscal Year 2013, DPW will have an effective Rewards and Recognition Program.

**Solid Waste Management Administration**

The Department of Public Works Solid Waste Management Administration is responsible for the following services:

- **The Solid Waste Collection Division** collects trash, recycling and bulk items from residences (single-family residences and residential buildings with no more than three living units). In FY 2011, this totaled approximately 104,000 households. Go to [www.dpw.dc.gov](http://www.dpw.dc.gov) for additional information.

- **The Solid Waste Disposal Division** receives and transfers trash and recyclables collected by DPW, as well as trash and recyclables collected by private haulers from commercial properties, e.g., office buildings, hospitals, schools and universities, churches, retailers, bars and restaurants, apartment buildings with four or more units, etc. Trash and recyclables are taken to either of the District-run transfer stations – Ft. Totten Transfer Station and the Benning Road Transfer Station.

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total trash tons collected</td>
<td>97,902</td>
</tr>
<tr>
<td>Total tons bulk trash collected</td>
<td>3,611</td>
</tr>
<tr>
<td>Tons of all recyclables collected/denoted</td>
<td>29,289</td>
</tr>
<tr>
<td>Fall leaf collection – tons composted</td>
<td>5,347</td>
</tr>
<tr>
<td>Fall leaf collection – tons</td>
<td>8,050</td>
</tr>
<tr>
<td>Total sweeping tonnage</td>
<td>2,131</td>
</tr>
<tr>
<td>Alley cleaning tonnage</td>
<td>2,611</td>
</tr>
<tr>
<td>Litter cans tonnage</td>
<td>7,834</td>
</tr>
<tr>
<td># Posters removed</td>
<td>16,878</td>
</tr>
<tr>
<td># Notices of Violation issued</td>
<td>20,453</td>
</tr>
<tr>
<td>Tons transferred (trash, recycling)</td>
<td>448,834</td>
</tr>
</tbody>
</table>

Source: Department of Public Works
Solid Waste Education and Enforcement Program (SWEEP) employees educate residential and commercial property owners, as well as individuals, about their responsibilities to properly containerize and dispose of trash and keep the public space around their property clean. SWEEP also provides services to combat illegal dumping, clean up vacant lots, and support neighborhood clean-ups. When education does not result in following proper sanitation practices, SWEEP inspectors will enforce the sanitation regulations.

The DPW Recycling Office is housed within the SWEEP program. The staff enforces the District commercial recycling regulations and conducts the monthly Household Hazardous Waste/E-cycling/Personal Document Shredding drop-off the first Saturday of the month at the Ft. Totten Transfer Station. Go to http://dpw.dc.gov/DC/DPW/Services+on+Your+Block/Recycling for additional information.

The Street and Alley Cleaning Division operates a year-round street sweeping program along the District’s arterials, e.g., East, North and South Capitol Streets; Branch Avenue; Wisconsin Avenue; Connecticut Avenue; Pennsylvania Avenue and Massachusetts Avenue. Additionally, SACD operates a citywide alley cleaning program and a residential street sweeping program that touches every residential street between March 1 and October 31. DPW’s most labor intensive program is the fall leaf and holiday tree collection that operates between November and January, six days a week, including most holidays. During snow season, the SACD mobilizes to remove snow and ice from District streets, which can mean shutting down the leaf collection operation because the same crews that remove leaves also remove snow and ice. Leaf collection resumes at the end of the snow removal operation. This division also removes graffiti and advertising posters, cleans vacant lots, removes illegally dumped items and collects trash from about 4,800 street litter cans along commercial corridors and at bus stops.

Parking Enforcement Management Administration

The Parking Enforcement Management Administration is responsible for the following services:

- **Abandoned Vehicle Operations** inspectors circulate throughout the District looking for abandoned and dangerous vehicles to investigate then remove from public and private property. Dangerous vehicles may be towed from public and private property immediately, once they have been ticketed. Abandoned vehicles will be towed within five business days from public space and 45 days from private property.

- **Booting and impoundment** – District law states that a vehicle is boot-eligible if it has two or more unsatisfied parking and/or photo enforcement tickets that are 60 days old. DPW searches for scofflaws’ vehicles using License Plate Recognition System (LPRS) technology. DPW will tow booted vehicles from the street to either 1725 15th Street, NE or the Blue Plains Impoundment and Storage Facility at 5001 Shepherd Parkway, SW.

- **Parking tickets** are written for expired meters and vehicle registrations, missing tags, residential permit parking and rush hour violations, double parking, failure to register a vehicle in the District, blocking snow emergency routes, loading zones, driveways, crosswalks, hospital entrances and bus stops; and other parking violations. DPW’s meter enforcement is to promote turnover at the meters so motorists can conduct their business. By enforcing residential parking regulations, DPW increases residents’ access to parking spaces near their homes.

- DPW will tow a vehicle, once it is ticketed, for any parking violation. Most vehicles are towed for rush-hour violations to improve traffic flow. Vehicles also may be towed for snow emergency violations, street sweeping violations to clear the path for street sweepers, and at the request of the Secret Service or Metropolitan Police Department to aid the President’s travel throughout the city. Typically, DPW tows vehicles that pose a danger to the public or impede the flow of traffic.

### Table 10.4. Parking Enforcement by the Numbers in FY 2010

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of parking tickets issued</td>
<td>1,523,443</td>
</tr>
<tr>
<td>Revenue from citations (per ACS)</td>
<td>$69,994,946</td>
</tr>
<tr>
<td>Vehicles immobilized via booting</td>
<td>21,586</td>
</tr>
<tr>
<td>Abandoned vehicles removed from public and private space</td>
<td>3,128</td>
</tr>
<tr>
<td>Vehicles towed by DPW</td>
<td>38,407</td>
</tr>
<tr>
<td>Vehicles towed/relocated for rush-hour violations</td>
<td>21,562</td>
</tr>
</tbody>
</table>

Source: Department of Public Works
Department of the Environment

The District Department of the Environment (DDOE) is responsible for the natural and indoor environments in the District of Columbia. DDOE’s work includes direct assistance to residents and businesses, policymaking, and monitoring and enforcement. DDOE is a relatively new agency, formed in 2006 from the Department of Health's Environmental Health Administration, the DC Energy Office, policy functions of the DDOT Urban Forestry Administration and policy functions of the DPW Office of Recycling. The mission of the agency is to improve the quality of life in the District of Columbia by protecting and restoring the environment. DDOE works to conserve natural resources, and provide energy policy and services. DDOE’s programs fall into three main categories: environmental protection, natural resources, and energy. In terms of environmental protection:

Energy

DDOE helps residents, businesses and visitors save money on their energy bills and reduce their impact on the environment as a result. The agency’s energy administration supports residential, commercial, governmental, institutional and transportation energy users and provides financial assistance to low-income customers. The office also teaches residents, students and businesses how to make energy-efficient decisions.

Energy Assistance

DDOE assists residents with their energy and utility bills through its financial assistance and utility discount programs. These programs are funded by the U.S. Department of Health and Human Services, the District Government, and the Energy Assistance Trust Fund. Services for Low-Income Residents include getting help paying utility bills, getting discounts on utility bills, providing assistance in getting new, energy-efficient appliances, and weatherization assistance for homes. DDOE assists all District residents with free home energy audits, and has launched programs aimed at providing incentives for solar installations, green roofs, and the replacement of old, energy-inefficient appliances.

Green Energy DC

DDOE offers a single resource for all residents and businesses that need to know about renewable energy products and services via the Green Energy DC brand. One significant program provided under this brand is the DC Sustainable Energy Utility (SEU), which designs and implements energy efficiency and renewable energy programs on behalf of the District. Energy use in the home is a major expense and has a major impact on the environment. Generating energy by traditional means also generates greenhouse gases. When these gases become trapped in the atmosphere, climate change is the result. By making homes and businesses more efficient, residents can avoid unnecessary energy use, save money and reduce their ecological footprint at the same time.

Renewable energy is green energy. It is also quickly becoming affordable energy and is incentivized through rebates offered by DDOE’s Renewable Energy Incentive Program (REIP). The REIP has been developed to increase the use and awareness of renewable energy generation technologies by District of Columbia residents, businesses, and institutions. As the price of technology drops and the price for traditional fuels fluctuates, renewable energy use is growing across the United States and around the world. By switching to renewable energy sources such as solar, wind, geothermal and biomass, one can help reduce dependence on a shrinking supply of fossil fuels and help reduce the greenhouse gases that lead to climate change.
Environmental Protection

DDOE protects the health and wellbeing of residents and visitors by monitoring and regulating the indoor and outdoor environment in the District. This includes assessing, monitoring, permitting, and enforcing the quality of our outdoor air, monitoring and enforcing toxic substances, remediating currently contaminated sites, and ensuring our homes are healthy and lead-free.

Air Quality

DDOE’s Air Quality Division works to protect the health and welfare of the District of Columbia’s citizens, millions of visitors, and natural environment by reducing the concentration of pollutants in the air in accordance with DC regulations and federal Clean Air Act and Clean Air Act Amendments requirements.

DDOE’s Air Quality work centers on monitoring and assessing ambient air quality, permitting and enforcement, and the development and implementation of air quality improvement plans and strategies. The District has five air quality monitoring stations that monitor air 24-hours a day. DDOE staff issues permits to facilities that emit air pollution in the District, and also enforces the permit conditions and the federal and the District’s air pollution control laws. DDOE staff, in conjunction with other area jurisdictions, also develops plans to improve air quality in the region. Emission control measures can be regulatory, voluntary, or market-based. Controls are generally applied to technology, manufacturing processes, the use of products, or work practices.

Motor vehicles are the largest source of air pollution emissions in the District. Vehicle exhaust is comprised of the air pollutants such as carbon monoxide, nitrogen oxides, volatile organic compounds, and soot. It erodes buildings and monuments and is a key contributor to the formation of ground-level ozone or "smog." Vehicle exhaust presents a hazard to human health and causes damage to personal and real property. To reduce these emissions, the District has implemented a law to limit engine idling. The District's engine idling law is one of the strictest in the country. With few exceptions, motor vehicles powered by gasoline or diesel are not allowed to idle for more than three minutes while the vehicle is parked, stopped or standing.

Among the services provided by DDOE’s Air Quality Division are the real-time air quality information and air quality forecasts in collaboration with partnering agencies in the metropolitan area. DDOE also has programs that help monitor and eradicate indoor air quality problems like mold, radon, and asbestos.

Hazards and Waste

The presence of waste and hazardous materials in our environment has consequences that cut across a number of environmental issues. Waste disposal can shape land use by requiring space for landfills, rather than alternate uses. In addition, landfill disposal, as well as improper disposal of hazardous waste, can result in chemicals leaching into soil and groundwater. Additional pollution from waste may reach rivers and streams through stormwater runoff. Finally, landfill waste contributes to the production of methane, a greenhouse gas linked to global warming. Therefore, the simple steps of reducing consumption, reusing materials and recycling eligible waste not only decrease the waste stream, but have beneficial impacts on a host of related issues.

Hazardous materials may also be encountered in daily life via certain products and building materials. Lead, asbestos, radon, pesticides, and mercury are just some examples of potentially hazardous materials that may be encountered through routine activities. Therefore, it is important to understand the potential health effects of these substances, as well as how to handle and dispose of them safely.
Lead and Healthy Housing

Lead is a powerful neurotoxin, exposure to which can cause serious, often irreversible health effects. Young children are at particular risk of harm, because their brain and central nervous system are still forming and vulnerable. Pregnant women are another special risk population, since lead crosses the placenta and affects the fetus.

Over the years, lead has been mixed with gasoline and with paint, used as solder for cans and for copper pipes, as piping for drinking water, blended with vinyl and with brass, employed as protective shielding against radiation and in the manufacture of batteries and computer components.

To mitigate lead contaminants within the District, DDOE:
- Enforces the District's lead laws to keep housing and child-care facilities safe.
- Promotes lead screening of all children under age 6 in the District.
- Works with the families of children whose blood tests show elevated levels of lead.
- Helps property owners and contractors comply with the District's lead laws.
- Reviews proposed lead abatement scopes of work prior to issuing lead abatement permits.

Lead is not the only environmental health threat lurking in residential housing. Other health and safety concerns include mold, radon, and carbon monoxide. DDOE’s Lead and Healthy Housing Division is also taking steps to identify and help minimize health risks associated with these and other environmental health concerns.

Natural Resources

Despite its urban characteristics, the District of Columbia contains a vibrant and diverse natural environment, characterized by major rivers, parks, wetlands, and habitats. The close proximity of these natural features to the busy workplaces, commuter routes, and residences creates unique challenges to ensure their protection; but also greater opportunities to enjoy their benefits. In reality, our urban environment causes us to value our rivers, streams, trees, and green spaces even more, and prompts us to work to ensure their preservation and enhancement.

Water in the District

Clean water is essential for human and animal life, for commerce and industry, and for recreation. Drinking water in the District of Columbia comes from the Potomac River, upstream of the District. Our main waterways are the Potomac and Anacostia Rivers and Rock Creek. The District is also part of the Chesapeake Bay Watershed. DDOE has three divisions dedicated to water:
- The Watershed Protection Division regulates construction sites for stormwater management and sediment and erosion control, educates District residents, students and teachers on the benefits of environmental stewardship, assesses the health of watersheds and habitats, and sponsors community restoration activities such as tree planting and drain marking, and promotes the use of low-impact development and offers incentives to property owners to reduce stormwater runoff.
- The Water Quality Division provides total chlorine and total coliform tests for drinking water, provides water quality certification for draft pollutant discharge permits, and certifies dredge and fill permits issued by the U.S. Army Corps of Engineers.
- The Stormwater Management Division manages the District's Municipal Separate Storm Sewer System (MS4) Permit, coordinates the District's stormwater fee, and works with other District Government agencies to reduce stormwater pollution.
Fisheries and Wildlife
The District Department of the Environment, Fisheries and Wildlife Division pledges to serve as a successful model for urban natural resource management by designing and implementing fisheries and wildlife conservation programs that promote ecological sustainability, elevate environmental awareness, and encourage citizen action through education, stewardship, and community involvement. Focus areas include, recreational angling, fisheries management, fisheries and wildlife surveys, wildlife education, and aquatic resources education.

To achieve its goals the Fisheries and Wildlife Division administers a total of nine federal grants, eight from the United States Fish and Wildlife Service and one from the National Oceanic and Atmospheric Administration. Additionally, the Fisheries and Wildlife Division operates the Aquatic Resources Education Center, a federally owned property located in Anacostia Park managed by DDOE for living aquatic resource education, aquiculture, and fisheries science.

- Fisheries and Wildlife Facts:
  - DDOE sells more than 6,500 fishing licenses annually generating between $65,000.00 and $85,000.00 each year.
  - The District spawns and releases a total estimate of 1,000,000 American and hickory shad each year.
  - DDOE plays host to more than 4,000 Aquatic Resources Education Center visitors each year.
  - DDOE conducts more than a dozen backyard habitat workshops to more than 350 participants.

A More Sustainable DC
In addition to environmental protection, energy, and natural resources, DDOE is working to create a greener, healthier, more livable city for all of us. To do this, the agency partners with District schools to increase environmental literacy, works with businesses to increase environmental stewardship, studies opportunities to mitigate and adapt to our changing climate, promotes sustainable development, enforces existing regulations, and engages in sustainability planning for the District.

Environmental Education
Through DDOE’s environmental education programs, the agency educates teachers and students about the connections between their personal actions and the health of their natural surroundings. DDOE staff work in a close partnership with the District of Columbia Public Schools (DCPS) and Public Charter Schools. Programs focus on wildlife, stewardship of local waterways within the Chesapeake Bay watershed, and energy conservation. These are aligned with DC Standards of Learning. Our education initiatives include:

- Teacher training in national environmental education curricula (Project Learning Tree and Project WET)
- The annual Anacostia Fair, an environmental education expo
- Education programs at the Aquatic Resources Education Center
- Meaningful watershed educational experiences
- School programs such as RiverSmart Schools and Green DC Schools
- Developing the DC Environmental Literacy Plan

Business Services
Business owners, managers, and employees need to understand and comply with the District's environmental regulations. DDOE staff is available to answer questions, provide assistance, and help you improve your environmental performance.

- DDOE Resources for Businesses
- Renewable Energy Incentive Program
Climate Change

The climate is an issue that permeates every environmental question. From the emissions generated by the built environment to the energy consumed in production and transportation to the uncertainty about future fuel reserves, solutions are needed to address a wide range of concerns. Chief among them is the challenge of climate change, which is largely caused by the emission of greenhouse gases created through energy consumption. Avoiding the worst effects of climate change will require action on a number of fronts, such as energy conservation, exploration of renewable energy sources and both individual and governmental commitments to cutting carbon consumption.

The District has taken significant steps recently to address this important issue. Actions include:

- In 2009, DDOE released a baseline greenhouse gas emissions inventory, using data from the year 2006. That baseline will serve as the benchmark from which future efforts to stem the release of greenhouse gases from District Government operations and the community at large will be measured.
- In September 2010, DDOE released “Climate of Opportunity,” a draft climate action plan containing more than 60 specific measures aimed at reducing greenhouse gas emissions within the District of Columbia. A public comment period that followed the release of the draft plan garnered dozens of comments and suggestions.
- DDOE is currently working with ICLEI Local Governments for Sustainability to revise and complete the climate action plan, with a completion deadline of April 2012. The climate action planning team will reassess the measures included in the original draft plan, and will include additional measures to increase the scope and effectiveness of the plan.
- DDOE is working with the Metropolitan Washington Council of Governments and the U.S. Environmental Protection Agency to assess climate change vulnerabilities within the District and to develop a set of measures aimed at strengthening the District’s resiliency to the effects of climate change.
- The District joined the Climate Registry in June 2007 in order to voluntarily report the District’s carbon emissions. The Registry works to develop measurement standards, so that emissions can be accurately tracked by jurisdictions across the country.
- Mayor’s Climate Protection Agreement: Signed by Mayor Adrian Fenty in January 2007, this agreement is an initiative by the U.S. Council of Mayors to meet the goals of the Kyoto Protocol at a local level.

Sustainable Development

Sustainable development involves making conscious choices to incorporate environmentally beneficial elements when deciding how to use a parcel of land. While buildings and construction methods are central to sustainable development, the term more broadly includes consideration of surrounding land features and use of innovative design techniques to lessen the impact of development. Thus, elements of sustainable development may include providing green space; managing stormwater on site; use of construction materials that contain little to no toxins; use of energy efficiency measures; accessibility, density and transit.

Green Building

A major component of sustainable development is green building. Green building is an approach to buildings design, construction and operations that conserves resources while it protects human health. Green buildings use less energy, consume fewer natural resources such as water and forest products, and emit fewer pollutants into the environment. Because they are designed to make use of natural light and good ventilation, green buildings provide a healthier indoor environment for their occupants. Studies show that students in green buildings learn better and workers in green buildings are more productive. The Green Building Act of 2006 requires that all District public buildings meet the U.S. Green Building Council's LEED certification standards for environmental performance. The District supports private sector innovation by expediting LEED Gold-level projects through the permitting process. By 2012, all new private
 development projects will be required to meet LEED certification. The District is truly a nationwide leader in green building as demonstrated by some impressive statistics:

- The District was the first city in the nation to require new privately constructed buildings to meet LEED standards, thanks to the Green Building Act of 2006.
- The District has 197 certified and 872 registered LEED projects as of June 28, 2011.
- District agencies report 37 Green Communities projects completed or underway.
- The District’s share of LEED Gold buildings is 50%, while the national is 39%.
- The District has almost twice the national average of LEED Platinum buildings (22 in all).
- We are first per capita for LEED nationally for cities over 200,000, and second in real numbers.
- The vast majority of LEED certified buildings come from the private sector.
- The most common LEED certification types are LEED for Commercial Interiors and LEED for Existing Buildings.

**Low Impact Development**

While land use and buildings are critical components of sustainable development, there are a number of other measures that can be employed in order to reduce the impact of development on the surrounding environment. Many of these measures are categorized as Low Impact Development (LID), which seeks to minimize stormwater runoff from a given site. LID projects include green roofs, rain gardens, rain barrels, downspout disconnections, permeable pavement, native plant landscaping and a host of other innovative ideas that combine to stop pollution from reaching our rivers and streams.

One way DDOE helps manage stormwater runoff across the District is through its RiverSmart Homes program. DDOE offers financial incentives for homeowners to adopt shade trees, rain barrels, pervious pavers, rain gardens, and bayscaping. The benefits of the program include:

- Minimizing the use of herbicides, pesticides and fertilizers used in conventional landscaping
- Stabilizing soils, helping to prevent erosion
- Providing increased habitat for native wildlife
- Reducing air pollution and the urban heat island effect
- Treating and infiltrating stormwater on site helping to recharge groundwater levels
- Diminishing the impact on aquatic life from polluted stormwater rushing to local streams during storm events.

**Enforcement and Environmental Justice**

DDOE is the prime enforcer of the District’s environmental laws, with a special mandate to protect communities that have been disproportionately harmed by past activities. In terms of enforcement, DDOE develops enforcement policies and procedures, maintains data on agency enforcement activities, manages the District’s civil infractions program, and facilitates staff training on enforcement and case management matters. In terms of environmental justice, DDOE ensures that District citizens who are low-income, minority, or have limited English proficiency receive equal protection under environmental laws and have meaningful opportunities to participate in environmental decision making undertaken by DDOE.

**Sustainability Planning**

In July 2011, Mayor Gray directed DDOE and the District Office of Planning to engage residents in every corner of the District to define a nation-leading sustainability strategy with a significant focus on energy, climate, water, waste, natural resources, land use, urban agriculture, and transportation policies and investments. This strategy will build on DDOE’s existing programs for stormwater and erosion management, RiverSmart programs (including tree planting, green roof installations, and a host of other green infrastructure practices), trash-free Anacostia commitments, fish and wildlife (and habitat) protection, and stream restorations.