



09 STATE HIGHWAY ADMINISTRATION ANNUAL REPORT



Neil J. Pedersen, SHA Administrator

Dear SHA Customers, Partners, and Employees,



On the following pages, you will read about SHA's accomplishments for fiscal year 2009. I am continually proud and humbled by the depth and breadth of activities that SHA handles and how well we have been able to accomplish them within tight financial constraints.

SHA began fiscal year 2009 with a reduced budget and ended the fiscal year with even further reductions due to the economic downturn. This challenge required a reduction in every aspect of SHA's work, including eliminating most projects from our capital program. Maryland welcomed the additional federal funding from the American Recovery and Reinvestment Act, which enabled us to fund necessary system preservation projects that would not otherwise have been completed. I am proud to report that Maryland was the first state in the nation to make use of this funding and quickly began construction of these projects. SHA completed the Maryland portion of the Woodrow Wilson Bridge replacement, which was the culmination of a nine-year \$2.4 billion construction project. SHA made major progress on the Intercounty Connector, the largest project in SHA's history.

Throughout the year, SHA never lost sight of supporting critical priorities, such as promoting safe driving, maintaining the long-term integrity of the highway system, being good stewards of the environment and providing good customer service to the citizens of Maryland. A key initiative for SHA in 2009 was to advocate support for the enactment of several new laws promoting traffic safety. This resulted in new laws combating driving under the influence of drugs and alcohol, allowing automated speed enforcement in work zones and school districts, increasing restrictions on young drivers and outlawing texting while driving. These laws will help address some of the most troublesome sources of serious highway crashes in the state. Although the data are incomplete for 2009, it appears that the trend is continuing for lowering highway fatalities in Maryland.

SHA also continued to proactively develop our commitment to environmental stewardship and customer service. We worked collectively on a grassroots effort in which every employee identified environmental stewardship activities and innovative environmentally friendly approaches to our work. We also made significant progress implementing a Customer Care Management System that tracks customer service requests as they progress through the agency.

SHA has achieved many national recognition awards, as you will see. However, I am most proud of the individuals in the SHA family who set high personal standards. It is their individual contributions as part of the SHA team that are the heart and soul of what makes SHA an outstanding agency.

Sincerely,

A handwritten signature in black ink that reads "Neil J. Pedersen". The signature is written in a cursive, slightly slanted style.

Neil J Pedersen, SHA Administrator

09

Annual Report

A reference guide for some of the terms used on the following pages:

AAA - American Automobile Association

AASHTO - American Association of State Highway and Transportation Officials

ADA - Americans with Disabilities Act

A/E - Architectural and Engineering

APS - Accessible Pedestrian Signal

ARRA - American Recovery and Reinvestment Act of 2009

CCMS - Customer Care Management System

Centerline Miles - The length of a road in miles measured along the center of the road

CHART - Coordinated Highways Action Response Team

CSFL - Choose Safety for Life

CVIEW - Commercial Vehicle Information Exchange Window

CY - Calendar Year

DMS - Dynamic Message Signs

DNR - Maryland Department of Natural Resources

DOT - Department of Transportation

EPA - Environmental Protection Agency

FHWA - Federal Highway Administration

FMIS - Financial Management Information System

FY - Fiscal Year

GIS - Geographic Information System

ICC - Intercounty Connector

ITS - Intelligent Transportation Systems

KPA - Key Performance Area

Lane-miles - The mileage from one end of a highway to the other multiplied by the number of lanes

M/DBE - Minority/Disadvantaged Business Enterprise

MDE - Maryland Department of the Environment

MDOT - Maryland Department of Transportation

MdQI - Maryland Quality Initiative

MDTA - Maryland Transportation Authority

MHSO - Maryland Highway Safety Office

MHT - Maryland Historical Trust

MPT - Maryland Public Television

MVA - Motor Vehicle Administration

Mitigation - To lessen the impact of pollution in communities and on the environment due to highway construction/highway maintenance activities

NEPA - National Environmental Policy Act

NHS - National Highway System

NTP - Notice To Proceed

PRSA - Public Relations Society of America

PSA - Public Service Announcement

SHA - State Highway Administration

SOC - Statewide Operations Center

TWIS - Truck Weight and Inspection Station

VMT - Vehicle Miles Traveled (i.e. two vehicles traveling two miles equals four VMT)

WWB - Woodrow Wilson Bridge

Our Mission, Our Vision, Our Values and Our Goals

SHA's Mission

Efficiently provide mobility for our customers through a safe, well-maintained and attractive highway system that enhances Maryland's communities, economy and environment.

SHA's Vision

Providing our customers with a world-class highway system.

SHA's Values

SHA employees embrace values that complement our vision and mission. These are grouped into four categories:

We Value Excellence in Our People: SHA employees are energetic, loyal, and supportive of one another. We encourage each other to reach our highest potential and are committed to gaining the skills, knowledge, and training to achieve our goals.

We Value Excellence in Our Work: As a team, we strive to know the needs of our internal and external customers. We fulfill commitments in a timely and accurate manner, using resources responsibly, and observing all legal, moral, and ethical standards.

We Value Excellence in Our Relationships: We value each other's opinions and ideas as well as those of our customers. We earn the respect and trust of our internal and external customers through fairness, honesty, integrity, and open communication. We accept responsibility and are accountable for our performance.

We Value Excellence in Our Work Environment: SHA provides a professional environment that is committed to putting the safety of its people and customers first. We strive to continually improve the workplace by rewarding accomplishments and encouraging employee involvement at all levels of the organization.

SHA's Goals

- Improve highway safety in Maryland
- Improve mobility for our customers
- Maintain a quality highway system
- Improve the effectiveness of managing our resources and projects
- Develop and maintain Maryland state highways in an environmentally responsible manner
- Improve communications with, service for, and satisfaction of our customers

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Major Program Responsibilities

An excellent highway system is crucial to a strong economy, maintaining the quality of life of Maryland’s citizens and keeping people safe as they travel.

SHA is one of the six agencies that comprise the Maryland Department of Transportation (MDOT). SHA owns, operates and maintains the Interstate, U.S. and Maryland numbered roads that represent the backbone of Maryland’s transportation system. This infrastructure forms the majority of the National Highway System (NHS)¹ in Maryland that connects local and county roads to major activity centers and other modes of transportation such as mass transit, the port, airports and railroads.

SHA’s highest priority is to improve highway safety on all roads in Maryland. Through implementation of the Strategic Highway Safety Plan, SHA and its partners provide overall performance targets to guide progress towards that goal. The agency is a key player in leading the development of implementation strategies and provides funding to administer statewide educational and public awareness campaigns.

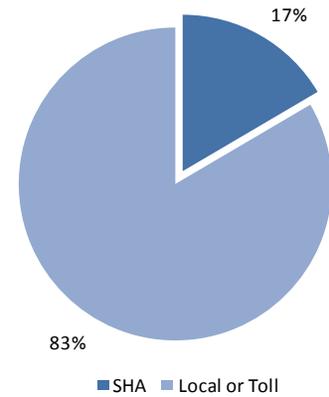
SHA roads carry 65 percent of traffic in the state.² For SHA, this translates to:

- Preserving the quality of approximately 16,900 lane-miles of road and 2,600 bridges;
- Performing critical specialized functions such as design quality control, managing traffic during emergencies and clearing roads during snow and ice storms;
- Performing routine maintenance on roadway features such as pavements, bridges, signs, lights, roadway markings, drainage and litter pick up;
- Working in collaboration with citizens, communities and elected officials to deliver high-quality projects; this includes the planning, design and construction of hundreds of projects from minor ones to improve accessibility to major ones such as the Intercounty Connector (ICC) and the Woodrow Wilson Bridge (WWB) reconstruction.

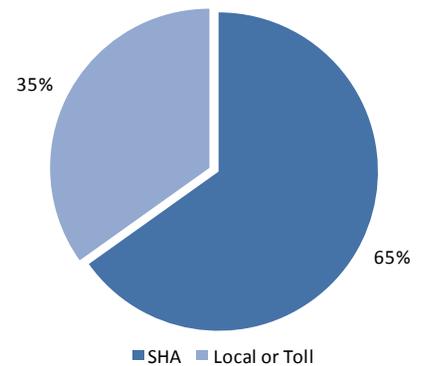
SHA also focuses on environmental compliance and stewardship as a key performance area (KPA) with initiatives including:

- Dedicated programs that improve water quality within and along SHA facilities;
- Environmental protection during project construction;
- Enhancement of existing environmental features in addition to required environmental mitigation;
- Employee awareness and overall environmental stewardship.

Maryland Highway Mileage



Travel on Maryland Highways (based on VMT)



¹ The National Highway System is a federally designated category of roads important to the nation’s economy, defense and mobility.

² Except specific facilities owned by the Maryland Transportation Authority and Interstate roads in Baltimore City.

District Offices and Shops

SHA has approximately 3,200 employees who carry out its mission and has more than 40 facilities around the state, including seven engineering districts and 28 maintenance shops.

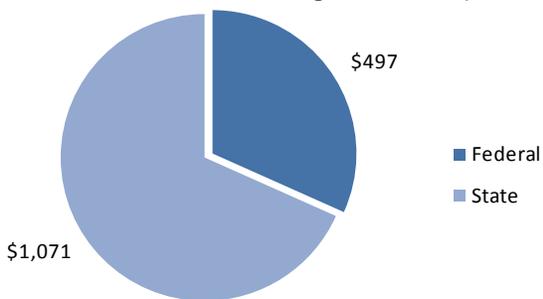


SHA’s headquarters is in Baltimore City. There are 16 offices at headquarters that provide central administrative, financial, information technology, procurement, audit, and planning and engineering functions. In addition, SHA’s operations offices and the Statewide Operations Center (SOC) are centrally located in Hanover near the Baltimore/Washington International Thurgood Marshall Airport. District offices manage highway and bridge construction contracts, perform maintenance functions such as roadway and equipment repair, snow and ice removal and roadside maintenance and are responsible for traffic engineering projects and operations.

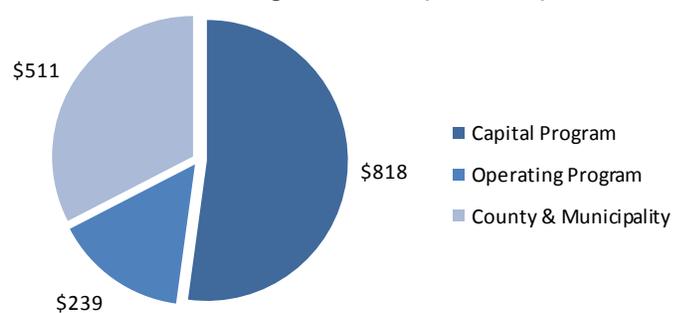
SHA Funding for Fiscal Year 2009

Financing for SHA activities comes from the State of Maryland’s Transportation Trust Fund and from federal transportation funding. The agency uses these funds for everything from planning new roads and bridges to building, maintaining and operating existing roads. In FY 2009, SHA delivered a capital program of more than \$818 million. Additionally, SHA spent more than \$239 million on operating programs, which include highway safety grants and highway maintenance operations of SHA’s approximately 16,900 lane-miles of roadway and distributed \$511 million to counties and municipalities for use on local systems.

SHA Source of Funding for FY 2009 (in millions)



SHA Use of Funding for FY 2009 (in millions)



Excellence in Our People and Our Projects

SHA values excellence in our people, our work, our relationships and our work environment and continually strives for performance excellence. As a result, SHA, SHA teams, SHA individuals and SHA projects were recognized with more than two dozen national, state and local awards in FY 2009 from some of the most well-regarded organizations in the nation. These include the Federal Highway Administration (FHWA), American Association of State Highway and Transportation Officials (AASHTO), American Society of Civil Engineers (ASCE), American Road and Transportation Builders Association (ARTBA), American Institute of Architects (AIA), American Council of Engineering Companies (ACEC), Public Relations Society of America (PRSA) and the American Concrete Institute (ACI).

Agency Recognition

- 2009 Maryland Preservation Award in the Stewardship of Historical Properties by a Government Agency category from the Board of Trustees of the Maryland Historical Trust (MHT). SHA was chosen because of its long-standing commitment to historic preservation and quality project design and as an exemplary role model for other state and federal agencies. MHT awards recognize the best preservation efforts in Maryland. The MHT noted that in a recent project, the rehabilitation of the US 40 Alternate bridge over the Cassellman River in Garrett County, the improvements to the bridge had no adverse effects on the National Landmark-eligible bridge.

US 40 Alternate Bridge over the Cassellman River after recent rehabilitation.



Team Recognitions

AASHTO

- 2009 AASHTO Standing Committee on Performance Management (SCOPM) Gold Exemplary Partner Team Award in Team Excellence to the Workforce Planning and Development – Maryland SHA University Team for its work on SHA University and its efforts to provide formal and informal training and skill development to ensure SHA has the capacity to perform its mission and develop the workforce required for the future highway system in Maryland.
- 2009 AASHTO SCOPM Gold Exemplary Partner Team Award to the Workforce Resource Center Team for its development of SHA’s Workforce Resource Center (WRC), a web page that allows employees to obtain resources for career mobility, career planning, training, and job opportunities. Recently, SHA employees reported an 86 percent satisfaction rating with the availability of career-mobility information, up from 51 percent obtained from a survey prior to the creation of the WRC.
- 2009 AASHTO SCOPM Gold Exemplary Partner Team Award to the Mid-Atlantic Region Technician Certification Program (MARTCP) Instructor Team for its work on developing mandated MARTCP training for inspection of soils and aggregates during roadway construction for state and consultant inspectors. The team used feedback from class participants to continually

revise and improve training, which has resulted in higher passing ratios, good independent audit results and a more educated inspection work force.

- 2009 AASHTO SCOPM Silver Pathfinder Team Award in Team Excellence to the Vacancy Control Team for its work on streamlining and providing guidelines and training on the recruitment and hiring process. A flow chart, companion check list and training module were developed and distributed. The average recruitment period was reduced from 166 to 96 days.
- 2009 AASHTO SCOPM Bronze Trailblazer Team Award in Team Excellence to the District 7 Project Development Utilities Team for its work in revising processes to maximize the efficiency of utility permit inspectors. The team created user-friendly permit application forms and form letters in a central location and consulted with its customers to send these letters electronically, resulting in a 50 percent savings in preparing each permit application, and annual savings of 310 staff hours and 14,200 miles on state vehicles.

Members of SHA's Motor Carrier Division with their SHA Certificate of Appreciation.



SHA RECOGNITION

- Members of SHA's Motor Carrier Division were recognized with an SHA Certificate of Appreciation for their outstanding achievement handling of cash receipts in the Hauling Permit Section. The Section processed more than 177,000 permits totaling more than \$11.8 million in calendar year (CY) 2008. Their diligence has been a success in ensuring that the proper internal controls regarding the cash receipts function are in place and are working.

OTHER RECOGNITIONS

- 2009 State Employee Risk Management Administration (SERMA) Health and Safety Group Award of Excellence in Risk Management to the Safety Management Team for its efforts to provide a safer workplace. The team aims to provide resources to promote a safe work place environment for all SHA employees, customers and stakeholders through preventative methods, case management and information.
- Pikesville Greenspring Community Coalition Certificate of Appreciation to District 4 representatives for the exceptional community relations demonstrated throughout several construction improvement projects performed in the area throughout 2008-2009.

Valerie Burnette Edgar holding award with Secretary Beverley Swaim-Staley.



Individual Recognition

- Valerie Burnette Edgar, Director of Communications, was awarded the 2008 Woman of the Year Award from the Women's Transportation Seminar Baltimore Chapter for her contributions to the advancement of women and minorities in the transportation field and as an outstanding role model.

Project Recognitions

INTERCOUNTY CONNECTOR

- 2009 Transportation Research Board (TRB) Interagency Partnership Award to SHA, the Maryland Transportation Authority (MDTA), and FHWA.

WOODROW WILSON BRIDGE

- 2009 ACEC Engineering Excellence Grand Award to the WWB project, SHA and Virginia DOT, Potomac Crossing Consultants and the five section designers for the project. ACEC noted that the “12-lane highway bridge features pioneering traffic congestion mitigation design...and capacity for future mass transit expansion. It contains the world’s largest moveable span...and is a prototype for successful design and construction management of other mega-projects.”
- 2009 ACEC Grand Conceptor Award finalist.
- 2009 ASCE Maryland Section Award in Civil Engineering Excellence in Outstanding Large Project Greater than \$20 Million.
- 2009 ACI National Award of Excellence in the Heavy Construction category in Maryland.
- 2009 ACI Maryland Chapter Excellence in Concrete Award in the Heavy Construction category to the WWB Contract BR-3C. This award is given to those projects whose design and construction represent the best concept, originality and applicability of concrete.
- 2009 AIA Northern Virginia Chapter Design Award of Excellence in Institutional Architecture for the Woodrow Wilson Memorial Bridge Operator’s Control House. These awards recognize its members’ achievement in design excellence and are given for those projects involving structures for government, education and religion.
- 2009 Gustav Lindenthal Medal in Bridge Engineering for a “single, recent, outstanding achievement in bridge engineering demonstrating harmony with the environment and for the outstanding engineering and construction work that encompassed both aesthetically pleasing and environmentally sound practice” on the Woodrow Wilson Bridge was presented at the International Bridge Conference in June 2009.
- 2009 ARTBA Globe Award in Environmental Excellence Second Place Award in the Bridge category to SHA and Potomac Crossing Consultants to the WWB – Anacostia East Wetland Mitigation Site. The program restored aquatic habitat in the mid-Potomac River watershed by rehabilitating 20 acres of Anacostia River tidal wetlands near the bridge crossing site. Team members created new wetland areas, built interpretive public access trails and parklands, eliminated non-native species and established native plants.

Woodrow Wilson Bridge drawbridge opens to allow passage of a tall ship.



View of the Woodrow Wilson Bridge looking towards Virginia.



- 2009 AIA Washington, DC, Chapter Award of Merit in Architecture to the WWB Operator's Control House recognizing excellence in architecture.

OTHER PROJECTS

- 2009 FHWA Exemplary Ecosystem Initiative Award to the US 301 Waldorf Area Transportation Improvement project. Planning for this project maximized the enhancement, protection and improvement of natural, community and cultural resources. These awards identify exemplary ecosystem and habitat projects that use cutting edge science or technology, use a high level of environmental standards and achieve high quality results.
- 2009 America's Transportation Award in the On Time, Small Project category to the MD 32 at Burntwoods Road project. SHA committed to using context-sensitive principles in design and construction on this project, the main arterial corridor in Anne Arundel County through Howard and Carroll counties. Stakeholders were involved throughout the life of the project, and as a result, the project was completed six months earlier than planned, and the expanded capacity and safety improvements generated broad satisfaction in the community.
- 2009 America's Transportation Award in the Innovative Management, Small Project category to the I-70 over Black Rock Road project. The project utilized the design-build process. In addition, in an effort to streamline this process, the Maryland Construction Management System was specifically modified for this project which was so important to the innovative management of the project that it has been adopted as a prototype on all future similar design-build projects.
- 2008 Archer-Bull Award Special Project Award for Design Excellence to the MD 924 (Main Street) project in Bel Air, Maryland. Archer-Bull awards recognize projects whose excellent design and construction have contributed to the community.
- 2009 ACEC/Maryland Engineering Excellence Award in the Building/Technology Systems category to the Hanover Complex Building and Technology Systems Upgrade project. The upgrade, which included the first installation of new energy efficient cooling equipment, met or exceeded project criteria, including a ten percent reduction in energy usage.
- 2009 Maryland Asphalt Association Paving Award for the MD 175 Primary Resurfacing project in Howard County.
- 2009 Maryland Asphalt Association Paving Award for the MD 407 Secondary Resurfacing project in Carroll County.

SHA Centennial Celebration

- 2008 AASHTO National Transportation Public Affairs Workshop Skills Award in the Display category for the Baltimore Museum of Industry Highway Centennial Exhibit. Winning entries demonstrate the best examples of innovation, planning, production and execution.
- 2009 Public Relations Society of America (PRSA) Silver Anvil Award of Excellence in the Events and Observances (more than seven days) Government category for the year-long Maryland Highway Centennial celebration in 2008. This is the second highest award given by the PRSA.
- 2009 PRSA Bronze Anvil Award of Commendation in the Publications Books category for the Maryland Highway Centennial history book entitled, “Moving Maryland Forward, A Century of Modern Road Building.”
- 2009 National Association of Government Communicators Gold Screen Award of Excellence for “Moving Maryland Forward, A Century of Modern Highways” Maryland Public Television (MPT) documentary. The film explores the journey Maryland has traveled over the past 100 years, from the founding of the State Roads Commission in 1908 to its incredible transformation into the world-class road system we enjoy today.
- 2009 Bronze Telly Award for “Moving Maryland Forward, A Century of Modern Highways” documentary on MPT. Telly Awards honor excellence in television, video and film productions, and work created for the Web. This award was chosen out of 30,000 entries from 50 states and five continents.

Vintage State Roads Commission signs at the Baltimore Museum of Industry Maryland Highway Centennial exhibit.



Highway Safety

Goal: Improve highway safety in Maryland

Highlights of SHA’s Accomplishments

- Seat belt usage statewide continued to increase, up to 94 percent in Summer 2009.
- Motor vehicle fatalities declined for the second year in a row to 592 for 2008.
- Alcohol and drug related fatalities decreased to 216 in 2008, an 11 percent drop from the previous year.
- Enhancements were completed to commercial vehicle tracking systems that will improve enforcement of safety requirements; one example is the addition of features that integrate data from many agencies including federal systems and make it available to police officers on the roadside.

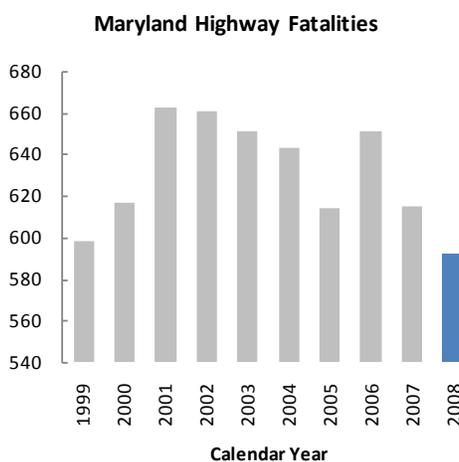
Comprehensive Approach to Improving Highway Safety

The Maryland Strategic Highway Safety Plan (SHSP) is a statewide, coordinated, comprehensive traffic safety plan to reduce highway fatalities and serious injuries on all public streets and highways. Maryland’s SHSP, developed in 2006, 14 safety emphasis areas. The strategies include enhancing and enforcing safety laws, conducting public information and education campaigns, training state and local agencies and making infrastructure improvements. The SHSP is a working document that establishes the overall goals, objectives and strategies that adapt to emerging issues from 2006 through 2010.

Overview of Highway Safety Results

Maryland’s highway fatality and injury rates have declined steadily over the last 30 years. The fatality rate has dropped from 3.20 fatalities per 100 million VMT in CY 1973 to 1.05 in CY 2008. Maryland’s fatality rate is more than 20 percent lower than the all-time lowest national fatality rate of 1.27 for CY 2008. Similarly, injury rates here have declined from 242.1 in 1973 to 85.7 in CY 2008, a decline of more than 60 percent. These reductions are attributable, at least in part, to higher seat belt use, enhancements in highways and operations, enhancements in vehicle safety design and equipment, programs promoting traffic safety public information and education, traffic law enforcement and adjudication, driver monitoring and control and commercial vehicle operations.

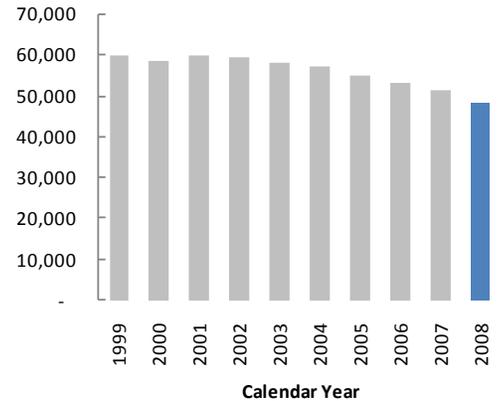
Although the long-term reduction in highway fatalities over the past 35 years continues, the annual numbers of traffic fatalities fluctuate considerably from one year to the next. Steady progress is being made towards the target of fewer than 550 fatalities per year by the end of CY 2010. Steady progress is also being made toward the target of fewer than 50,000 traffic injuries per year by the end of CY 2010. The number of persons injured has dropped from 59,500 in CY 2002 to about 48,000 in CY 2008.



On a percentage basis, yearly pedestrian fatalities fluctuate even more than overall fatalities, making annual differences even less significant than for total fatalities. Over the past decade, annual pedestrian fatalities have ranged between 100 and 120. Despite education, engineering and enforcement efforts, the state actually is farther from the CY 2010 target of fewer than 85 pedestrian fatalities now than it was at the end of CY 2007. Compared to a decade ago, pedestrians have been experiencing fewer reported injuries. The 2,469 pedestrians injured in CY 2008 were about 270 fewer than those injured in CY 1998. Achieving the target of fewer than 2,300 pedestrians injured per year by the end of CY 2010 could be difficult.

Overall, achieving reductions in annual fatalities and injuries are ambitious objectives that Maryland is succeeding at despite experiencing an aging population, increasingly inattentive and aggressive driving and other factors that threaten progress.

Maryland Highway Injuries

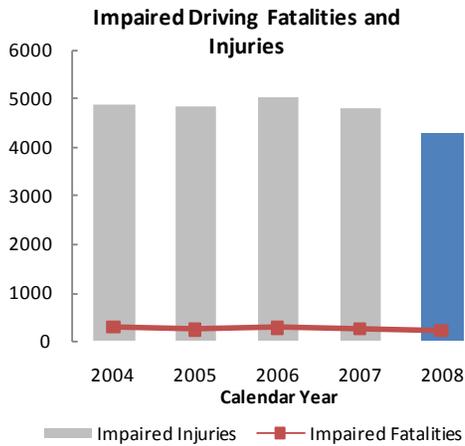


Safety Legislation

The 2009 Legislative Session saw SHA’s largest proactive traffic safety agenda in at least a decade. The result is new safety laws on the books allowing automated speed enforcement in work zones and school zones, a new law package to deter driving under the influence of drugs and alcohol, tougher young driver restrictions as well as the outlawing of texting while driving.

- The work zone safety speed camera bill passed this session and included the use of speed cameras in school zones. The legislation authorizes MDOT to use speed camera systems in work zones on expressways and controlled access highways where the speed limit is 45 mph or higher beginning October 1, 2009. It allows local jurisdictions to place speed-monitoring systems in and around school zones.
- The 2008 legislative session established a Task Force to Combat Driving Under the Influence of Drugs and Alcohol. This multidisciplinary group offered 42 recommendations, including several that required subsequent legislation. Five bills were introduced with the Governor’s Office spearheading the effort with extraordinary staffing from SHA, and four became law. The bills passed by the Maryland General Assembly address two of Maryland’s greatest impaired-driving challenges: repeat offenders and underage drinkers.
- SHA worked with MVA and the Governor’s Office to enhance young driver safety and address inconsistencies in the law. This bill was hotly debated and in its final form restricts individuals from applying for a provisional license until they are 16 years and 9 months (it was formerly 16 years and 3 months) or a full license until they are 18 (it was formerly 17 years and 9 months). The

law also allows for probation before judgment for moving violations to reset an individual’s learner’s permit or provisional driver’s license period (currently, only convictions can reset the period).



Lt. Governor Anthony G. Brown launches the July Fourth Topsy? Taxi! program in Baltimore’s Inner Harbor.



Pro Bowler and former Ravens player Jonathan Odgen records a Choose Safety for Life radio public service announcement at CBS studios in Baltimore.



Impaired Driving

- Maryland has been successful in reducing injuries and fatalities caused by driving under the influence of drugs and alcohol.
- SHA, in partnership with American Automobile Association (AAA) Maryland and Yellow Cab company, provided the Topsy? Taxi! Effort in the Baltimore area, that gave free cab rides to would-be impaired drivers for several holidays during which drivers often drink: St. Patrick’s Day, July Fourth, Labor Day and New Year’s Eve. The campaign included web promotions, radio public service announcements (PSAs), grass roots and enforcement efforts. Since the program’s inception, nearly 1,000 drunk drivers have been removed from Baltimore area roadways. The July Fourth campaign included a press conference at Hard Rock Cafe in the Inner Harbor featuring Lt. Governor Anthony G. Brown, as well as the distribution of materials to Baltimore City bars and restaurants.
- SHA partnered with Mid-western Community Traffic Safety program to distribute "Kiss me; I'm sober" coasters with cab numbers to Frederick and Carroll county bars.
- Governor Martin O’Malley hosted “Maryland Remembers” at the Miller Senate Office Building in Annapolis, an effort to remember those killed in impaired driving crashes and to redouble efforts against drunk driving. At the event, SHA released to the public the report from the Task Force to Combat Driving under the Influence of Drugs and Alcohol.
- The Impaired Driving Coalition launched the annual Checkpoint Strikeforce campaign, an education and enforcement campaign against impaired driving which extended from August through December. Efforts also included a special Checkpoint Strikeforce education and enforcement campaign in preparation for Halloween weekend - including 'ridealongs' with law enforcement.

Choose Safety for Life (CSFL)

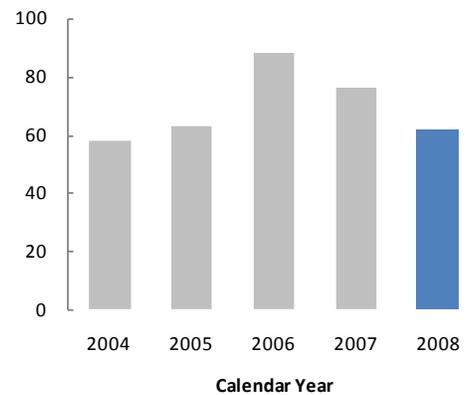
- SHA headquarters and district employees staffed the SHA booth at the annual Maryland Association of Counties conference in Ocean City. SHA distributed maps (transportation, scenic byway and bicycle) to convention attendees, as well as other SHA information focusing on safety. Staff highlighted the CSFL campaign and enlisted local government partnerships for the campaign.

- Choose Safety for Life (CSFL) – Safe Driving Has Its Rewards/ Phase II launched in Fall 2008 in partnership with CBS Radio. Drivers who pledged to drive safely received a CSFL card with special rewards including discounts at area stores and services.
- CSFL mobile billboard toured at college homecomings at Towson, Frostburg and Morgan State universities, reaching more than 20,000 young drivers.
- CSFL New Year's Resolution campaign was promoted in December 2008 and January 2009 with paid PSAs on Comcast television and continuation of Jonathan Ogden radio spots on CBS Baltimore radio in combination with Ravens Playoff sports marketing.

Aggressive Driving/Speeding

- On July 9, Neil Pedersen, along with Motor Vehicle Administration (MVA) Administrator John Kuo, National Highway Traffic Safety Administration officials, Baltimore County Police Chief James Johnson and President of the Maryland Chiefs of Police Association Chief Jeffrey Spaulding kicked off the Smooth Operator campaign, which highlighted the prevention of aggressive driving and outlined the new partnership with Baltimore County.
- SHA continued to proactively address specific types of crashes, such as the June 2009 fatal crash along I-70 at the I-695 interchange/Park and Ride.

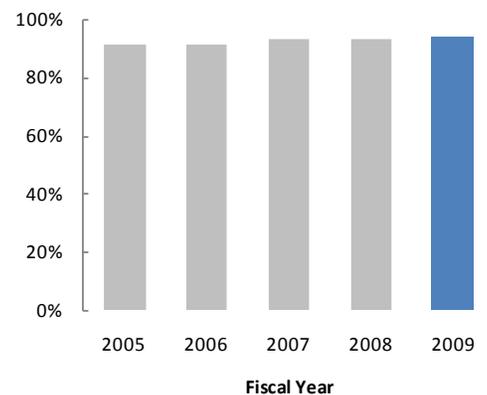
Aggressive Driving Related Fatalities



Seat Belt Usage

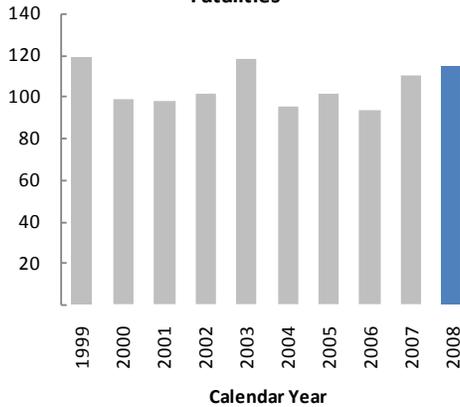
- As a technology, seat belts continue to be a motorist's best protection against crashes. In the event of a crash, there is no better technology to aid in reducing the likelihood of a fatality or injury. Maryland's statewide seat belt use rate increased to an all-time high of 93.3 percent in 2008, up from 93.1 percent in 2007. The increase in the rate means that 2.5 percent, or 7,200, of Maryland drivers were converted into safety belt users during the past year.
- SHA's highway safety office launched the Click-it or Ticket campaign in May, as well as the Buckle Up for Bucks program.
- Lt. Governor Anthony G. Brown was joined by SHA Administrator Neil Pedersen, along with state legislators, health, local and safety officials to spotlight children's health and safety by promoting Maryland's new booster seat law. The new law extends the time a child is required to be in a booster seat from age six to age eight (or until they weigh at least 65 pounds or reach the height of 4' 9" tall). The event was held at the Johns Hopkins Children's Center.

Maryland Statewide Seat Belt Use





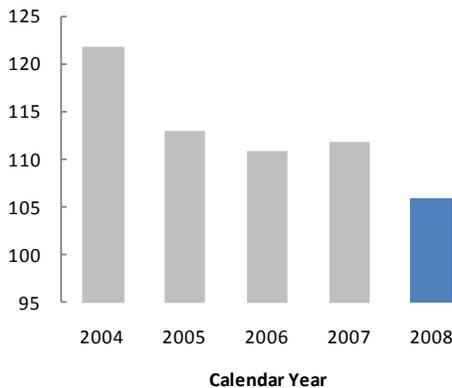
Maryland Statewide Pedestrian Fatalities



Pedestrian Safety

- Supported StreetSmart, a regional pedestrian safety initiative (including DC, Maryland and Virginia) was launched in Washington, DC.
- Supported Maryland’s Drive Safely work week and local efforts for the national Walk your Child to School Day on October 8.
- Maryland launched a StreetSmart press conference in November at MD 410 and Bethesda Chevy Chase High School, where SHA completed \$400,000 in pedestrian-related upgrades.

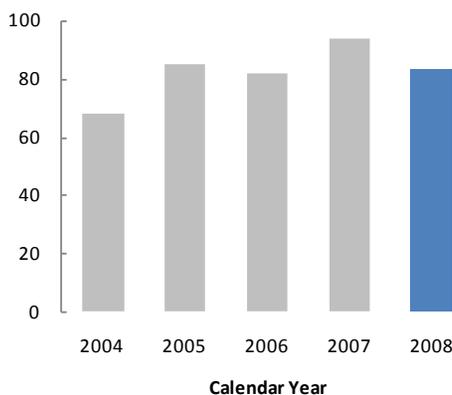
Young Driver Fatalities



Young Driver Safety

- SHA, in partnership with Ford’s Driving Skills for Life and the CSFL campaign, sponsored a video PSA for teens contest throughout Maryland entitled, “Driving Skills for Life Safe.” Entry submission requests kits were mailed to all public and private high schools in Maryland with radio marketing on WERQ. Participants had to complete a safe-driving online learning module course and then create a video PSA that teaches teens about safe driving behaviors. Three winners were announced and awarded prizes, including funds for the winning schools.
- Secretary John Porcari spoke at St. Mary’s Public Schools’ Young Drivers Safety Initiative in July at which the Southern Maryland Pilot Volunteer program aimed at improving teen driving safety using “Drive CAM” was launched.
- Movie ads were released during National Teen Driver Safety Awareness Week.

Motorcycle Fatalities



Motorcycle Safety

- SHA partnered in MVA’s December Motorcycle Safety Summit with motorcycle safety stakeholders and in MVA’s motorcycle safety awareness event in May.
- SHA began a motorcycle safety awareness campaign and declared May Motorcycle Safety Awareness Month in conjunction with stakeholders such as ABATE (American Bikers Aimed Towards Education) and other motorcycle groups. The campaign included television PSAs with popular DJ Tigger, who is an avid motorcyclist.
- SHA promoted new motorcycle safety laws with news releases and highway dynamic message signs.
- SHA promoted National Sleep Awareness Week (March 1-8) with a press release and messages on highway signs.

- SHA supported the Inattentive/ Drowsy Driving Prevention Program.

Work Zone Safety

- SHA participated in National Work Zone Safety Awareness press conference in Washington, DC, which featured the family of Rick Moser, an SHA employee killed in a work zone in 2007. SHA and MDTA displayed messages on signs and SHA produced radio PSAs featuring Mr. Moser's widow.
- Governor Martin O'Malley, in the presence of the Rick Moser family, signed into law the new bill permitting speed cameras in work and school zones.

Truck and Motor Carrier Safety

- SHA partnered with the Maryland Motor Truck Association in the Share the Road press conference in August 2008, which highlighted the need for driving safely around commercial trucks during National Truck Driver Appreciation Week.
- Collection of Maryland Transportation Authority's new permit load facility use fee in support of open road tolling.
- Development of a frequent permit violator program to identify system abusers for proper sanctions.
- Development of a data flow program to import hauling permit information into the Commercial Vehicle Information Exchange Window (CVIEW) system which is available to law enforcement at roadside.
- Conducted training sessions to update enforcement personnel on technical tools to facilitate enforcement initiatives.
- In May 2009, the Virtual Weigh Station concept to facilitate enforcement of weigh and safety regulations for motor carriers using camera, overheight sensors, Weigh-In-Motion scales and cellular communications, was made operational on MD 32 through an SHA, University of Maryland and Cardinal Scale Manufacturing Company collaborative partnership. This provides a means to identify potential violators and trigger follow-up enforcement action at a fraction of the cost of the fixed site. It also can be relocated to track vehicles that change routes to avoid permanent TWIS sites.
- In May 2009, Maryland put PrePass into operation at the I-70 West Friendship TWIS, the first of four PrePass electronic screening sites under Contract to HELP, Inc. Electronic screening results in improved traffic flow, focuses vehicle inspections and ultimately achieves the goals of increased safety and reduced operating costs through review of weight, height, safety records and credentials at speed on the mainline.

- Maryland's first integrated thermal imaging Truck Weigh and Inspection Station (TWIS) system was completed in February 2009. The use of thermal imaging has been demonstrated as an effective method of screening the brakes on CMV's to determine if they are operable. Brake related violations are the number one reason for commercial motor vehicles (CMV) being placed out-of-service so easy detection of failing brakes will help improve CMV safety.
- Completed an upgrade to Maryland's CVIEW that integrates data from multi-modal legacy systems and interfaces with federal databases including inter- and intrastate carrier, vehicle, and driver safety and credential data, was completed in November 2008. Significant enhancements include addition of oversize/overweight permit data, ability to provide carrier access, and increased expediency through partial VIN number searches.

Engineering Efforts to Promote Safety

- The Road Safety Audit (RSA) process was refined in FY 2009. Audit locations are now identified based on a three-mile section of roadway with the highest numbers of fatalities and injuries. The team also developed a web-based tracking system for every recommendation and implementation as well as funding sources and the actual cost for each recommendation. In 2009, the RSA team trained 14 traffic engineers and six technicians from SHA district maintenance. There were nine RSAs conducted with individual funding established for each audit. The team is also assisting Montgomery County in implementing its pedestrian RSA program.
- SHA activated a new traffic signal at the northbound US 29 (Columbia Pike) crossover access to westbound I-70 in Howard County.
- An aggressive effort was funded to increase implementation of centerline and edgeline rumble strips along roads such as US 1 Bypass in Harford County to help prevent crossover crashes.
- SHA installed stop and warning signs and rumble strips at US 29 and I-70 in Howard County to enhance safety in response to community concerns and will continue a study of long-term solutions.
- SHA opened a new interchange on MD 32 at Burntwoods Road in Howard County as part of a larger ongoing effort to safely manage access in the heavily traveled MD 32 corridor.
- SHA opened Lusby Connector in Calvert County, which provides a safer intersection along MD 2/4 and access to the planned Lusby Village Center.
- SHA is continuing to proactively install accessible pedestrian signals (APS) which provide enhanced safety for all pedestrians including those with physical disabilities. So far, 29 percent of the locations have been completed.

Mobility and Congestion Relief

Goal: Improve mobility for our customers

Highlights of SHA's Accomplishments

- The percent of intersections that are APS equipped and the percent of sidewalks that are ADA compliant have continued to increase as SHA has made deliberate efforts to modify projects and provide dedicated funding for upgrades.
- Communication of travel time information has been steadily improving from year to year with more timely and frequent messages as additional capabilities are added to the CHART system.
- SHA completed 15 major highway/bridge projects in FY 2009 at a total cost of \$1.53 billion; which includes such projects as the \$1.3 billion replacement of the Maryland portion of the Woodrow Wilson Bridge, the replacement of nine other bridges, interchange improvements at the I-95/I-495 interchange with Branch Avenue Metro Station in Prince George's County and the construction of the Hampstead Bypass in Carroll County.

Overview

During CY 2008, the number of vehicle miles traveled (VMT) on state highways decreased. This is a relatively unusual occurrence that appeared to follow the economic trend of the year. This reduction resulted in less congestion of roads and lower cost savings resulting from congestion management efforts.

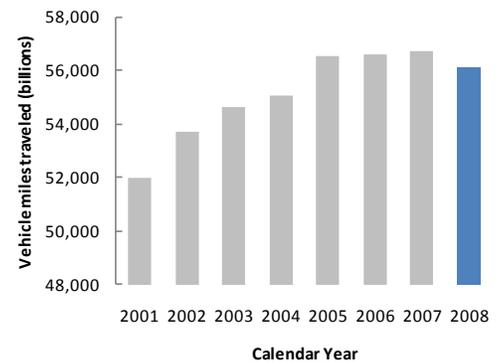
CHART Program – Responding to Incidents and Assisting Drivers on the Road

The Coordinated Highways Action Response Team (CHART) incident management program continued to ensure roadway safety while providing economic benefit to motorists and commerce in Maryland. In CY 2008, CHART responded to and cleared more than 15,000 incidents and assisted more than 17,000 stranded motorists. The reduction in delay in CY 2008 was 31.66 million vehicle-hours, which was a decrease from the previous year's time savings of 35.98 million vehicle-hours. Still, this reduction in delay corresponded to \$982 million in direct benefits to highway users.

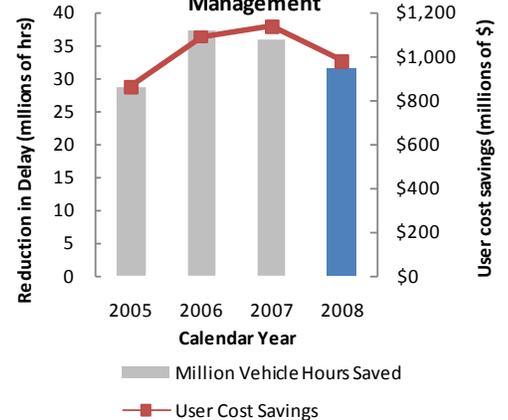
The average daily traffic decreased during CY 2008. The reality of the economic downturn over the past year has resulted in people driving less. This overall downward trend in traffic patterns is expected to continue and therefore, the actual user cost savings due to CHART is anticipated to be less than the one billion dollars established target for the upcoming year. Also, during the year:

- SHA maintenance and CHART personnel supported the MDTA in responding to a traffic fatality on the Bay Bridge in August 2008 that necessitated lane closures of the eastbound span and repair of a concrete Jersey wall, as well as managed detour route traffic and signs.

Annual Vehicle Miles Driven



Savings due to CHART Incident Management



- SHA participated in the massive outreach and logistical support for the inauguration of President Barack Obama in January 2009. Operational support included extra patrols to assist with disabled vehicles, crashes and traffic management. SHA communicated frequently about traffic and piloted the use of Twitter updates.
- SHA conducted Thanksgiving Day traffic management and outreach to warn travelers to plan ahead.

Traveler Information and Data Shared with the Public and Other Agencies

There was a substantial improvement in traveler information to the public and other agencies during FY 2009 due to enhancements which provided better communication and data transfer systems. This improvement was reflected in the functioning of our devices, the frequency of travel information displayed and the number of web hits received.

- Dynamic Message Signs (DMS) and Highway Advisory Radio (HAR) were operational 96 percent of the time.
- CHART has 88 systems/data sources that are interconnected, up from 65 last year.
- Information was posted 23,005 times on DMS and HAR, which increased from last year.
- CHART received more than 47 million web hits from the public in FY 2009, consistently exceeding 3 million per month.
- CHART deployed and integrated 26 new closed circuit television cameras statewide and added 40 new portable traffic monitoring sensors on the Eastern Shore, which brings the total number to 589 ITS devices deployed throughout the state.
- Camera video feed interoperability with other regional agencies allowed for access to over 300 additional camera sites in Maryland. This was accomplished through a project that allows access to third party videos through a secure connection with the Internet and Network Maryland, the statewide government Intranet for all state agencies and local governments.

CHART has 589 Intelligent Transportation Systems (ITS) devices deployed throughout the state.



CHART Program Management – Interagency Cooperation is a Key Element

CHART representatives met with Pennsylvania and Delaware to coordinate evacuation plans and held monthly meetings for the Metropolitan Area Transportation Operations Coordination (MATOC) program with MDOT, Virginia

DOT, and the Washington Metropolitan Area Transit Authority (WMATA). Several 911 Operation Centers were brought on-line, including Worcester, Wicomico, Somerset, Dorchester, Talbot, Caroline and Kent counties, the Ocean City Emergency Operations Center and the Maryland State Police in Berlin, Maryland.

During FY 2009, SHA hosted inter-agency training sessions and promoted CHART awareness at various fire stations throughout the state. SHA also partnered with AAA when they hosted the annual Bay Bridge summer travel press conference.

Moving Freight in Maryland

Maryland’s state highways currently carry about 85 percent of all the freight traffic in the state. In 2008, SHA processed more than 177,000 permits totaling more than \$11.8 million of revenue from these trucks. Special arrangements are made on a regular basis to move loads heavier than allowed by regular permits. SHA can be involved in everything from planning the route to supervising the entire transport through the state. In February 2008, SHA began planning for one of the largest loads to ever pass through the state - two steam generators that individually weigh 1 million pounds each, with a total weight of 1.622 million pounds when mounted on the transport vehicle.

A steam generator weighing 1 million pounds being moved through the state.



Delivering Projects That Provide Additional Capacity

SHA completed 15 major highway/bridge projects in FY 2009 at a total cost of \$1.53 billion, which includes projects such as the \$1.3 billion replacement of the Maryland portion of the Woodrow Wilson Bridge, the replacement of nine other bridges, interchange improvements at I-95/I-495 interchange with Branch Avenue Metro Station in Prince George’s County and the construction of the Hampstead Bypass in Carroll County.

Intercounty Connector (ICC):

- As of June 30, 2009, contracts to build 17.9 miles of the 18.8-mile ICC were underway, representing \$1.5 billion in work of the \$ 2.5 billion project.
- As of June 30, 2009, approximately \$903.7 million of the project budget, or 35 percent, was expended.
- As of June 30, 2009, ICC construction workers logged more than 1,660,000 labor hours.
- As of June 30, 2009, Contract A, seven miles of the ICC between I-370 and MD 97, was nearly 45 percent complete and on schedule to finish in late 2010.
- Work continued on more than 50 ICC environmental mitigation and stewardship projects.

Contract “A” of the ICC was 45 percent complete and scheduled to open to traffic by early 2011



The new Woodrow Wilson Bridge was completed in December 2008.



The 5.8-mile Hampstead Bypass in Carroll County to relieve congestion in the Town of Hampstead.



The award-winning Lusby Connector project that was completed in the fall of 2008.



- Contract B, which comprises seven miles of the ICC between MD 97 and US 29, began construction in January 2009 and by June 30, 2009, it was more than seven percent complete.
- Contract C, US 29 to I-95, comprises 3.8 miles of new highway, as well as 1.3 miles of US 29 road improvements and 1.9 miles of I-95 auxiliary lanes. Construction began in late Spring 2008 and by July 2009 was more than 31 percent complete.

Woodrow Wilson Bridge: The replacement of the WWB reached a milestone in December 2008 when all lanes were opened to traffic. The new bridge provides ten “local” and “thru” lanes, eliminating one of the most congested bottlenecks in the nation. An additional two lanes (now used as wide safety shoulders) are available for future use, which could include rail or bus transit or high occupancy vehicles. The interchanges in Maryland at MD 210, I-295 and at US 1 were also substantially completed.

In June 2009, the dedicated bike and pedestrian path that connects Alexandria, Virginia and Prince George’s County, Maryland also opened for use. The trail links the Potomac Waterfront Community Park, National Harbor, the Potomac Heritage Trail and Bolling Air Force Base. In Virginia, it feeds into the Washington Street deck, which, in turn, connects to Mount Vernon, Alexandria-Arlington-DC, the Washington and Old Dominion Trail and the trail to US 1.

Hampstead Bypass: Completion of the 5.8-mile Hampstead Bypass in Carroll County, a road that had been planned for 48 years to relieve traffic congestion in the Town of Hampstead.

MD 32 at Burntwoods Road: This new interchange was opened in Howard County, enhancing traffic flow and creating safer travel through the corridor. SHA opened two new ramps, three new roundabouts, and removed two existing traffic signals along MD 32 (Sykesville Road) at Burntwoods Road.

Capital Beltway at Arena Drive: As part of SHA’s \$30 million Arena Drive project, crews reconfigured ramps from I-95/I-495 at MD 214 (Central Avenue) in Prince George’s County. The new ramp movements will improve safety by eliminating an unsafe merge condition, as well as facilitate improved mobility in the region.

Lusby Connector: This award-winning project completed in the fall of 2008 was intended to alleviate pressure from Rousby Hall Road (Route 765) and the Chesapeake Ranch Estates – the largest population center of Calvert County. The project came in under budget and ahead of time. Improvements include:

- A new, two-lane roundabout at Route 765.
- A modified “T” intersection where the new roadway and Route 2/4 meet, providing protected left turns to and from southbound Route 4; there also is a half-signal stopping traffic along northbound Route 2/4.

IV Mobility and Congestion Relief

- A new three-lane roadway between Route 2/4 and Route 765 – two lanes going eastbound to Route 765 and one lane going westbound to Route 2/4.

MD 80/MD 355 and I-270: Funded by private developers, the reconstruction of MD 80 and MD 355 to a four-lane road east of I-270 and south of Urbana in Frederick County was completed. It will serve the rapidly developing area and also relieve congestion on MD 355 and MD 80 near the I-270/I-70 crossroads just south of Frederick.

SHA also began construction of several important projects:

- A \$500,000 project along US 29 (Columbia Pike) at Old Columbia Road in Howard County. SHA will widen and lengthen existing acceleration and deceleration lanes to enhance safety and reduce congestion.
- A \$55 million widening project along MD 124 in Gaithersburg that includes five intersection closures for up to one week each through Fall 2009.
- The I-695/Charles Street interchange project in Baltimore County – a three year, \$38 million reconstruction project to improve safety and capacity.
- The \$48 million MD 355 (Rockville Pike) at Montrose Parkway/Randolph Road interchange project in Rockville, Montgomery County.
- MD 193 at MD 320 widening project in Takoma Park, Montgomery County. The project will improve capacity and safety.
- A \$12 million project to widen MD 295 between I-695 and I-195 to alleviate congestion.

Bicycle Accommodations

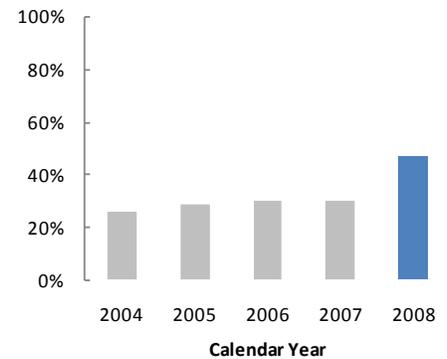
- SHA participated in Bicycle Day in Annapolis and testified on numerous bills to promote cycling safety.
- As funding permits, SHA is continuing to provide additional miles of bicycle compatible roadways.

Congestion Relief Projects

Projects to address localized areas of congestion without widening the road slowed down in FY 2009 due to budget constraints. However, the following are examples of some projects that were completed:

- MD 198 at Fieldcrest Rd in Montgomery County
- MD 32 from MD 26 to south of Macbeth Way and Piney Ridge Parkway in Carroll County where two through lanes were created in each direction on MD 32 and an intersection was signalized.

Percent of SHA Network in Urban Areas with Sidewalks



As funding permits, SHA is continuing to provide additional miles of bicycle compatible roadways.



- MD 950 at Dolfield Rd. in Baltimore County
- SHA completed a new traffic pattern (restriping, signage) and resurfacing of MD 100 flyover ramp over I-97 in Anne Arundel County. This is a huge ramp with significant volume of traffic; work necessitated complete road closure. Changes provided both efficiency and safety improvements.

Streetscape Project: MD 924 (Main Street) in Bel Air

MD 924 (Main Street) in Bel Air was completed in the fall of 2008.

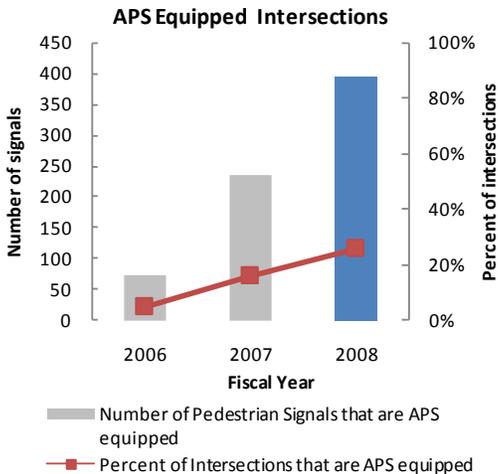


This project that won multiple awards and was recognized by Town officials was completed in the Fall of 2008. The project included significant public involvement. Throughout the course of the project, many citizens and businesses were affected on a daily basis. Upon completion, the town residents were pleased with the result. Main Street was improved to include parking.

Accessibility for People with Disabilities

SHA continued to dedicate capital funds to reconstruct sidewalks and upgrade intersections to provide ADA required features such as APS and wheelchair accessible curb cuts. In addition, major efforts made use of Federal Economic Recovery funding to prepare five construction contracts (totaling over \$12 million) for the ADA Compliance program.

- Provided ADA Awareness training for 93 percent of employees. SHA is working to provide on-line training to capture the remaining seven percent of employees who have not taken the Awareness training, as well as all new employees in the future. The development of the training migration to on-line format is on hold due to funding constraints.
- Close to 300 field reviews were performed to ensure ADA compliance of sidewalks on projects after the completion of construction. About 50 of these were projects on state roads that were being built by others.



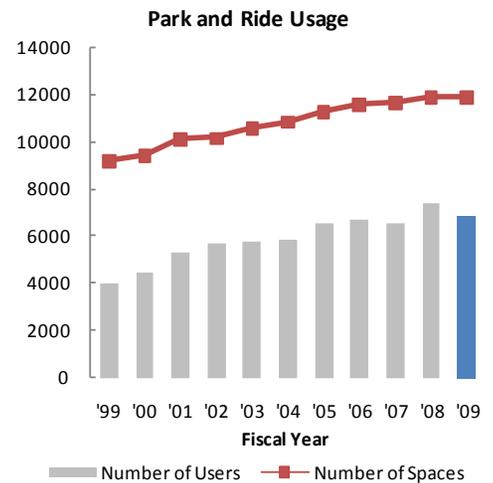
Changing Signal Timing to Minimize Delay at Intersections

Through the end of FY 2009, SHA completed a review of 403 signals. For the entire FY, timing changes were made in 27 signal systems covering 201 signals. Delay was reduced by seven percent where timing modifications were made. Annual delay reduction was 740,000 hours. In addition, fuel consumption was reduced by 1.16 million gallons. The calculated annual savings that resulted from the program totaled \$23 million. Total expenses were \$571,000, and the benefit-cost ratio was 43 to 1.

In FY 2009, SHA used Bluetooth technology to collect travel time data for the first time, beginning with corridors. The first test corridor was on MD 24 in Harford County. The test provided a large number of data points and clearly demonstrated the impacts of timing changes. It also identified areas that can be refined for future deployments. The Bluetooth technology is superior to the traditional “time runs” method in almost every way. Bluetooth can collect many more data points at far less cost than “time runs.” This technology will allow us to collect more and better field data without spending more.

Expanding Park and Ride Facilities

On an average workday SHA ridesharing facilities provide for 7,100 commuters. Annually, this equates to 102.7 million miles of vehicle travel (VMT) subtracted from Maryland highways. Annually, SHA ridesharing facilities save an estimated 5.2 million gallons of fuel and reduce CO2 emissions by an estimated 51.4 tons. A small number of spaces, 30, were added in FY 2009. There are over 500 additional spaces in the project development pipeline to be constructed as funding permits.

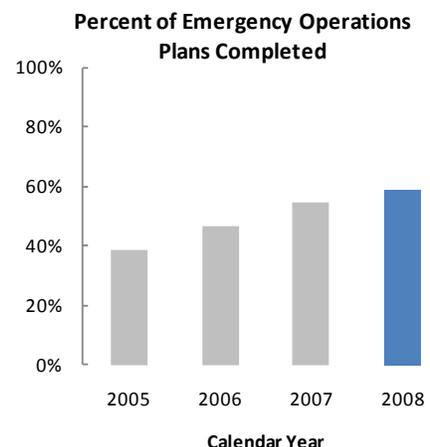


Homeland Security and Emergency Management

SHA is responsible for developing emergency preparedness and regional incident management plans. These cover statewide potential emergencies from hurricanes on the Eastern Shore to wholesale evacuation of portions of the state. Additionally, separate plans are prepared to specific incidents such as health epidemics or winter weather. These plans are developed jointly with many state and federal agencies that are involved in implementing emergency plans and regulating what needs to be addressed in these plans.

In FY 2009, SHA continued to make progress in preparing emergency operations plans and other preparedness activities:

- Participated in extensive pre-planning, public communications and multi-agency coordination in support of the 2008 Presidential Inauguration which took place in January 2009.
- Developed a pandemic influenza preparedness plan to ensure the continuity of essential SHA functions in the event of a pandemic.
- Was awarded U.S. Department of Homeland Security public safety interoperable communications grants totaling \$1.25 million to support the installation of CHART workstations in Eastern Shore county emergency operations centers, facilitate the development of a Western Maryland interoperability network, and erect a communications tower in St. Mary’s County.



- Was awarded U.S. Department of Homeland Urban Area Security Initiative grants to install traffic detection equipment in the national Capital region (\$900,000) and continue development of a traffic evacuation modeling system (\$110,000) for the Baltimore metropolitan region.
- Participated with other state and federal agencies and local jurisdictions in homeland security and emergency preparedness exercises related to regional hurricane response, traffic evacuation management, radiological incident response, catastrophic dam failure, winter storm operations, debris management and presidential inauguration preparedness.
- Completed national incident management system training of SHA emergency response managers including the issuance of 1,274 training certifications.
- Conducted statewide emergency operations in response to Tropical Storm Hannah.

System Preservation and Maintenance

Goal: Maintain a quality highway system

Highlights of Accomplishments

- Statewide pavement ride quality has been maintained at or above the 84 percent SHA Business Plan goal level since 2007. Current statewide value is 86 percent acceptable.
- SHA reduced the number of structurally deficient bridges from 129 in 2008 to 114 in 2009, due to additional funding for projects that were in the pipeline and were completed prior to April 2009 (the mandated reporting date to FHWA).
- The overall level of service for maintenance activities statewide increased by 5.2 percent in FY 2009 to reach our statewide target of 87 percent.
- The level of service for mowing increased by nearly 16 percent in FY 2009 due to SHA successfully implementing a streamlined mowing policy.
- The level of service for litter removal increased by 7.2 percent in FY 2009 as compared to the previous year by more efficiently leveraging our resources.

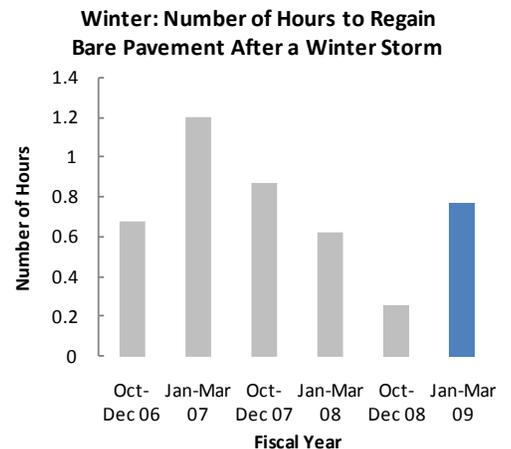
Responding to Winter Storms

SHA continued to sustain a very high standard of clearing roadways after winter storms by achieving bare pavement conditions in less than one hour on average for every quarter during the winter months. Maryland experienced a season filled with winter precipitation in the form of rain, sleet and freezing rain, and finally snow in early March which amounted to three to eight inches of snow throughout the state. The only exception to this is far Western Maryland which received above average snowfall of 76.9 inches on average.

Ice, sleet and freezing rain require heavier use of salt than snow, but even with the majority of the state seeing mixed precipitation during the 2008-2009 winter season, salt usage rates were marginally lower than the year before.

SHA met the challenges of clearing snow and ice through deliberate and thorough preparation, which began in the Fall with equipment inspections. SHA was well prepared to meet the challenge, with:

- Extensive personnel (2,600 people available, including SHA and contract personnel).
- Extensive equipment (2,300 pieces of equipment, including SHA and contract equipment).
- Adequate salt (336,000 tons).
- Eight salt-brine machines in strategic locations across the state to tackle especially challenging snow levels in the rural areas of the state.
- Nearly 80 wing plows; the extra “wing” allows crews to move more snow in one pass, expediting snow removal and enhancing safety.

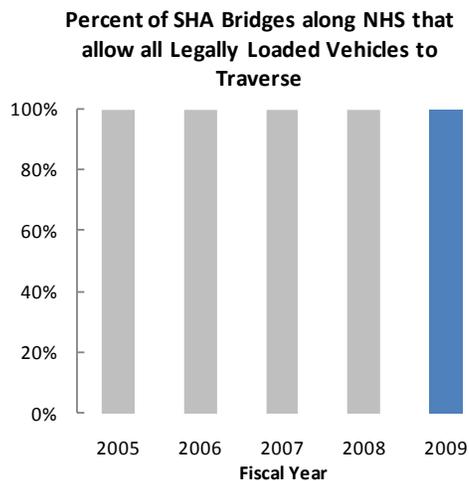
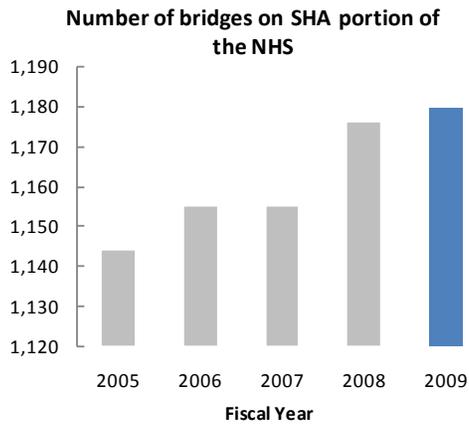


Snow removal operations are an SHA priority.



Bridges

In 2008, SHA sustained one of its top structural priorities, which is to maintain all the SHA bridges on the NHS so that they are free of weight restrictions, thus allowing the NHS to be fully functional for all legally loaded vehicles. SHA also had a very successful year in reducing the number of structurally deficient bridges. The structurally deficient rating is an early warning sign for engineers to use to prioritize funding and to initiate repairs or to begin the process to replace the bridge. The rating applies to three main elements of a bridge: the deck, the superstructure and the substructure. These elements are rated on a scale from zero (closed to traffic) to nine (relatively new) and if any of the three elements is rated as a four or less, the bridge is categorized as structurally deficient by federal standards. The total number of structurally deficient bridges was reduced from 129 in 2008 to 114 in 2009, as of April 2009 (the mandated reporting date to FHWA). This was accomplished primarily due to receiving the necessary funding to create a program where many bridge projects that were in the pipeline were completed prior to April 2009.



The other factor was the two-pronged attack on deficient structures. The first approach was a very aggressive structures maintenance program where we had as many as 17 contractor construction crews working continuously throughout the year that either repaired existing conditions or performed work that would deter deficiencies from occurring. The second approach was to create plans and advertise for the major rehabilitation and/or total replacement of structures that would not benefit from remedial work, but whose deficiencies could only be addressed by major efforts.

This bridge maintenance effort showed its benefits in reducing the number of borderline condition structures that became structurally deficient during CY 2008 until April 2009 and actually removed some of those that were structurally deficient where SHA was able to perform enough rehabilitation to remove their deficiencies. In reducing the number of structurally deficient bridges, an agency must do two things: address bridges that are already deficient and minimize those that become deficient that were not on the present listing.

Projects that were completed included:

- Ten major bridge replacement projects were completed, scattered throughout the state for a total of \$41.8 million.
- Twenty-two structurally deficient bridges were addressed in CY 2008 and only seven bridges were identified during routine inspections as structurally deficient during the year.
- MD 464 over Catoctin Creek was reopened following emergency repairs, ensuring motorist safety until this structurally deficient bridge is replaced in CY 2010.

V System Preservation and Maintenance

- Clara Barton Parkway bridge was reopened in late October 2008.
- MD 450 bridge over Bacon Ridge Branch outside of Annapolis was opened ahead of schedule and in time for school opening. Replacing the bridge and elevating the roadway was completed in approximately nine weeks. Public feedback was overwhelmingly positive and there was good environmental stewardship on a sensitive project.
- SHA started a \$7 million project in Frederick County to replace the bridges along I-270 over Dr. Perry Road. This project should be completed by early March 2010, weather permitting.
- Casselman River bridge in Western Maryland was rehabilitated and opened, and won a MHT award for preservation.
- MD 201 bridge replacement over Amtrak/Beaver Dam Branch in Prince George's County finished two months ahead of schedule; work was necessary due to the age of the bridge and expansion to accommodate traffic and connection to US 50. The interchange carries 104,000 vehicles per day.
- MD 355 bridge over I-70 was fully opened to traffic.
- MD 28 (Tuscarora Road) bridge over Washington Run in Frederick County was reopened to traffic on September 23. SHA closed the road to replace the bridge on June 17, 2008.
- SHA and CSX Transportation successfully placed rail traffic onto the new \$74 million grade-separated bridge along MD 450 at Peace Cross and Upshur Street. SHA alleviated major delays at the former at-grade crossing. The improvement was welcome news to motorists, residents, businesses and emergency first responders, who now save precious minutes responding to those in need. It saves commuters countless hours that had previously been spent stuck in traffic waiting for a train to clear the roadway.
- SHA reopened the MD 159 (Old Philadelphia Road) bridge over Cranberry Run in Aberdeen. The project was completed one month ahead of schedule.

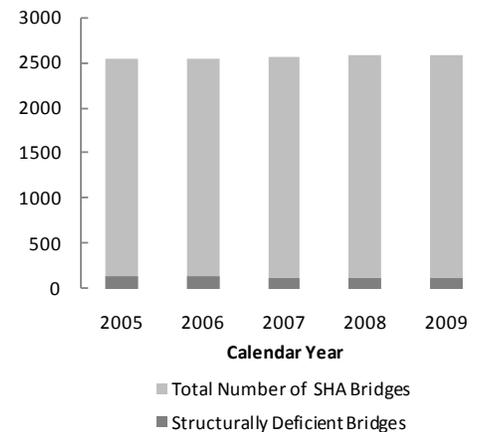
As soon as it became available, SHA also leveraged federal funding from ARRA to start several bridge projects:

- \$1.7 million to clean and paint ten bridges in various locations throughout Prince George's County.
- \$2.1 million to clean and paint various bridges in Prince George's County along US 1, MD 201, MD 202, MD 212 and MD 500.
- \$2.3 million to replace the MD 725 bridge over Federal Spring Branch, also in Prince George's County.

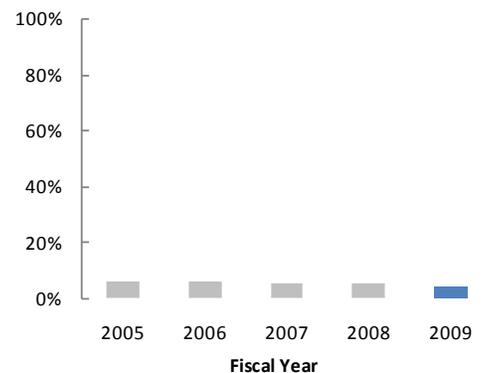
US 40 Alternate bridge over the Casselman River.



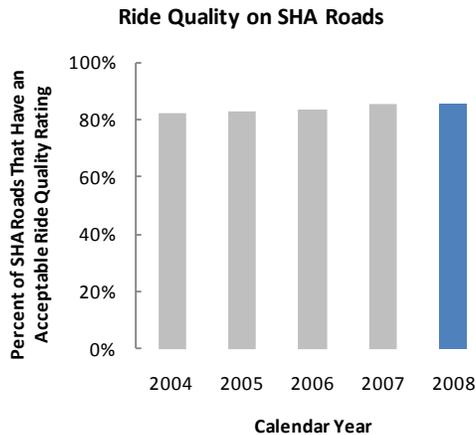
Structurally Deficient Bridges



Percent Structurally Deficient Bridges



Preserving Pavement Condition



The 2008 pavement network in acceptable overall ride quality calculation indicates that 86 percent of the pavements were in acceptable ride condition in CY 2008, as they were in CY 2007. In addition, 93 percent of the roads on Maryland's NHS are in acceptable condition, the majority of which (78 percent) falls under the responsibility of SHA.

This increase is a result of the cumulative effect of increased investment in pavement maintenance over the past several years. SHA resurfaced a total of 798 lane miles in FY 2009. This was 13 percent more than the previous year, in large part due to lower raw materials costs and influx of ARRA funding. SHA is in the process of upgrading existing data collection equipment and transitioning between two different devices, and this has created some variability in this rating.

A significant accomplishment is the increase in pavement conditions in District 3, encompassing state roads in Prince George's and Montgomery counties. The percent of acceptable pavement increased from 70 percent in CY 2006 to 73 percent in CY 2007 and to 77 percent in CY 2008. A higher percent of the network in this district has been improved in recent years compared to the rest of the state. A more strategic mix of selected projects and treatments in recent years contributed significantly to the achieving this improvement.

Some of the projects that were completed in FY 2009 include:

- I-695/MD 295 interchange ramps were resurfaced as part of a larger \$4 million I-695 resurfacing project.
- MD 109 safety/resurfacing was completed a month ahead of schedule in Beallsville, Montgomery County.
- Completed a 6-week, \$250,000 project to resurface approximately one mile along northbound and southbound MD 550 (Church Street) in Thurmont, Frederick County.
- US 1 Alternate between Southwestern Boulevard and the I-695 bridge in Baltimore County was resurfaced; the \$518,000 project was several weeks' work.

Roadway paving at the south end of MD 147.



Preserving pavements often means the reconstruction of portions of a road on which multiple issues are causing the road to deteriorate. An example is the project completed in Fall 2008 to resurface, improve drainage and enhance safety along US 50 in Trappe, Talbot County. This \$1.6 million project along more than five miles of US 50 included grinding and resurfacing eastbound US 50 and replacing a stormwater management pipe under both directions of US 50 near the Choptank River bridge.

Approximately 50 resurfacing projects were initiated throughout the state with ARRA funds. Each of these projects were valued at approximately one million to more than four million dollars. Some examples include:

- The first ARRA resurfacing project in St. Mary’s County was nearly four miles of MD 5 (Leonardtwn Road) between MD 247 (Loveville Road) and MD 234 (Budds Creek Road) in Leonardtown.
- More than seven miles of resurfacing in Caroline County along portions of MD 16 (Harmony Road) in Preston, MD 404 Business (Meeting House Road) in Denton and MD 318 (Federalsburg Bypass) in Federalsburg for \$2.3 million.
- Resurfacing MD 90 (Ocean City Expressway) in Worcester County between east of US 50 and east of MD 589 (Race Track Road) for \$2.3 million.
- More than \$10 million on state highways throughout Prince George’s County.

Roadway construction undertaken in June 2009.



Maintenance Activities Along the Roads

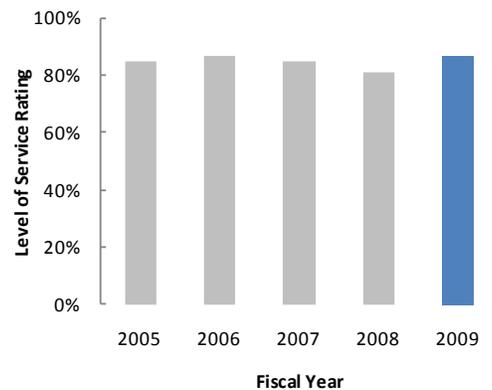
SHA’s maintenance activities are rated as the most important activity that SHA delivers according to the agency’s 2008 external customer survey. In FY 2009, SHA reached our statewide target of 87 percent for overall maintenance level of service, an increase of 5.2 percent since FY 2008. This is due mostly to a funding increase received in FY 2007 as a direct result of demonstrating the relationship between the enhancement proposal and the performance goals and objectives for maintenance activities. This maintenance budget was distributed throughout SHA’s district offices partially based on condition ratings that allowed them to perform some additional preventive maintenance. SHA also made some process improvements in how maintenance activities are performed and crews are streamlining activities and targeting resources on the most critical portions of activities. These all have had a cumulative benefit that is now showing positive results.

LITTER REMOVAL

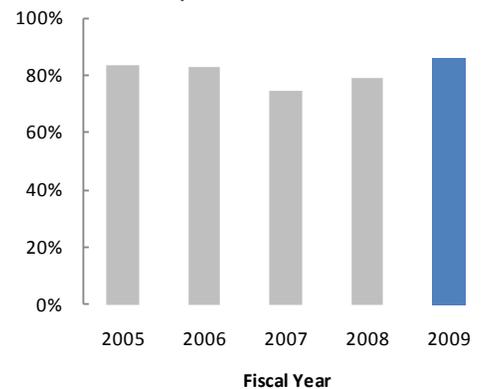
SHA’s approach to litter removal has been multi-pronged, harnessing both public and private resources. Anti-litter efforts included the use of SHA’s maintenance shop personnel, private contractors and inmate labor. It is supplemented by a Sponsor-A-Highway program that allows corporations to sponsor litter removal on one mile segments of interstate highways in return for a small road sign placed in recognition of their efforts. SHA also has a vibrant Adopt-A-Highway program of volunteers who pick up litter along less-traveled highways. The number of bags of litter removed by these various methods for FY 2009 was as follows:

- SHA personnel, inmates, and/or paid contractors removed 14,128 truckloads of litter, which equates to 706,400 bags.

Maintenance Level of Service



Percent of SHA Roadways With Acceptable Litter Levels

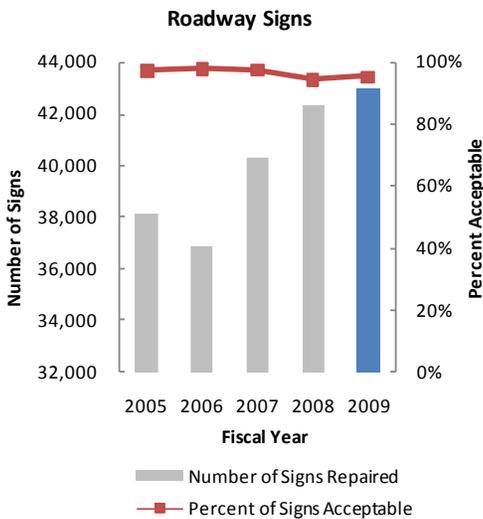


- Sponsor-A-Highway program: Corporate sponsors removed 6,886 bags at no cost to SHA; this program is being expanded.
- Adopt-A-Highway volunteers: Volunteers removed 7,893 bags at no cost to SHA. This program celebrated its 20th anniversary and a small ceremony was held honoring the coordinators and volunteer groups who have dedicated their efforts to this vital program, resulting in a cleaner Maryland.

SHA also made a focused effort to have better coordination between the litter removal efforts at the shop level. SHA litter removal was scheduled around Sponsor-a-Highway and inmate labor removals. As a result, many shops scaled back litter removal efforts by SHA staff. Litter removal efforts were increased in District 3, a location that has a high demand for litter removal. With these combined efforts, the level of service for this activity increased 7.2 percent in FY 2009 as compared to the previous year.

SIGNS

In 2009, SHA achieved a 95 percent level of service for acceptable signs. This is an increase from last year. This is partly due to 2,184 more signs that were maintained in FY 2009 than the previous year through such activities as repairing them or replacing knocked-down signs. Also, maintenance shops concentrated on brush and tree trimming especially on maintaining a clear view of all regulatory signs.



BRUSH AND TREE

Changes in how brush and tree trimming were done also helped to increase the level of service in FY 2009 by 7.1 percent to 81.5 percent, exceeding the 80 percent target. Maintenance shops concentrated on safety issues such as maintaining sight distance and eliminating sign obstructions rather than tree canopy reductions. In addition to improving performance, this also decreased the unit cost by 14.64 percent. This helped SHA stay within our reduced budget in FY 2009. However, it is likely that motorists will begin to see more downed trees in severe storms.

PAVEMENT MARKINGS

SHA maintains markings on roads such as stop bars and crosswalks. In 2009, the level of service for this activity increased by 2.7 percent to 68.7 percent. Primarily a result of an aggressive, contractor-supported effort by District 4, 170,125 more square feet of pavement markings were placed in FY 2009. A relatively mild winter with diminished amounts of measurable snow also helped to reduce the damage to pavement markings caused by plowing operations. However, it will remain a challenge to achieve the statewide target of 80 percent acceptable for pavement markings. With funding limitations, SHA will focus on school zones and areas with high pedestrian activity (e.g., crosswalk maintenance) in future years.

LINE STRIPING

The level of service for this activity increased in 2009 by 3.0 percent to 92.4 percent, but it is still a challenge to reach the desired level of 98 percent. Fewer miles of lines were striped in FY 2009 than the previous year. Some of this was due to continuing use of durable marking that does not require repainting. However, overall budget tightening has resulted in less use of contractors for this work and therefore a reduced capacity to perform annual restriping.

HIGHWAY LIGHTING

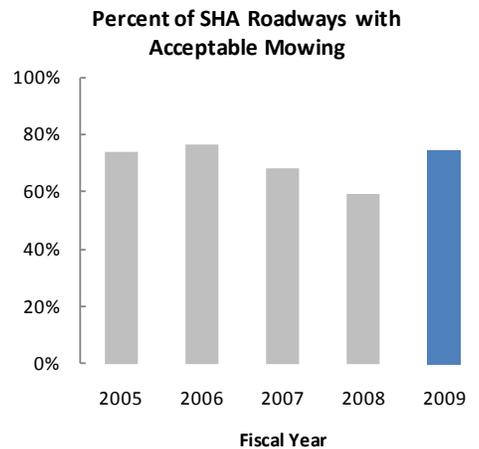
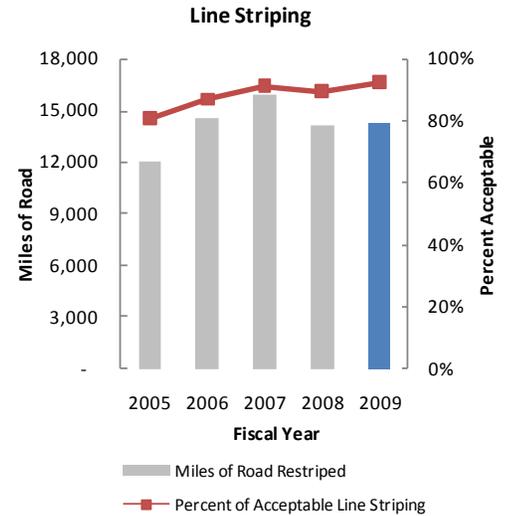
The level of service for this activity for the past three years has remained steady. This year, the relatively mild winter lessened the impacts of freeze-thaw related water infiltration cable damage. To stay within future budget constraints, drivers will begin to notice an increase in lights not functioning in non-critical areas. Maintenance shops in some areas will concentrate on replacing “knockdowns.” These efforts will be supplemented by several limited capital projects if funding is available.

MOWING

The level of service for this activity increased by nearly 16 percent in FY 2009. The majority of the mowing performed during the FY 2009 mowing season was done by SHA personnel under the new mowing policy. This policy calls for less mowing, which will be more cost-effective and better for the environment. Motorists will see higher levels of roadside grass and less landscaping. SHA made maximum use of staff resources and equipment instead of contractors to achieve this increase in overall performance for mowing.

Responding to Emergencies

SHA responded to highway emergencies as part of its operations. In FY 2009, SHA responded to a major water main break in December 2008 along MD 190 (River Road) near MD 191 (Bradley Boulevard) in Montgomery County in which motorists were trapped in their vehicles. SHA assisted with water rescues of stranded motorists in need of immediate help. MD 190 was reopened to traffic on the evening of December 31, 2008. SHA also continued to expand its communications network. In September 2008, the construction of a new communication tower on Warren Road at I-83 was completed. This new tower will provide a valuable communication link for northern Baltimore County. It will benefit SHA, other state agencies and assist local emergency response personnel.



Organizational Effectiveness

Goal: Improve the effectiveness of managing our resources and projects

Highlights of SHA's Accomplishments

- Maryland was the first state in the nation to obligate ARRA funds and to meet the 50 percent obligation requirement within 120 days.
- SHA employees demonstrated their ability to maintain continuity of operations during an emergency in February 2009 when a water main break flooded the Headquarters complex in Baltimore City. Day-to-day operations were relocated quickly such that critical projects such as ARRA-funded projects were still implemented on time.
- SHA saw many improvements in training through full implementation of the SHA University structure such as a dramatic increase in the number of employees with current Professional Development Plans, reducing training costs per day per employee and decreasing the “no show” rate for scheduled training events.
- The average number of days to fill a vacant position decreased from 166 days in FY 2008 to 96 days in FY 2009 following a review of the recruitment and hiring process.
- SHA sustained tight controls on managing materials and supplies inventory, achieving a very low adjustment rate of 1.33 percent on average for FY 2009. This is the third year in a row that SHA achieved this goal.

Performance Excellence at SHA

Woven throughout the pages in this report is the story of SHA's quest for performance excellence. This quest was built on a solid foundation of quality at SHA and folds in strategic management for public agencies and Managing for Results and includes concepts found in both Total Quality Management and Continuous Quality Improvement. SHA's vision for performance excellence is to achieve “Excellence in All That We Do,” derived from the Malcolm Baldrige criteria for performance excellence, but tailored into the five vision areas shown in bold below.

The Performance Excellence Training conference was held at the University of Maryland in November 2008. This conference highlights various SHA employees and teams with innovative concepts and programs to improve SHA's operations, training and technical processes. This year's Team of the Year Platinum Award was presented to the Practical Mathematics Application Team from District 3. This team developed training to provide maintenance staff with a basic math course to help prepare them for the Construction Mathematics course, one of the certification requirements of the Facilities Maintenance Technician certification program. Overall, 39 individuals and teams were honored at the conference.

LEADERSHIP

SHA continued its leadership development focus for employees of all levels. SHA leadership competencies were incorporated into the pilot performance appraisal plan and another layer of management – assistant division chiefs and above – was

added to the plan. One hundred percent of SHA employees participating in this pilot initiative have a performance plan to which they have been held accountable. The employee survey was also used to measure agency-wide leadership skills. More information on this later in the chapter.

BUSINESS PLANNING AND PERFORMANCE MEASUREMENT

SHA continued its biweekly reviews with KPA councils to review and track performance measure results. Several measures were added or revised to adjust to changing agency performance measures and needs. SHA continues to report performance measures at monthly StateStat presentations to the Governor's Office.

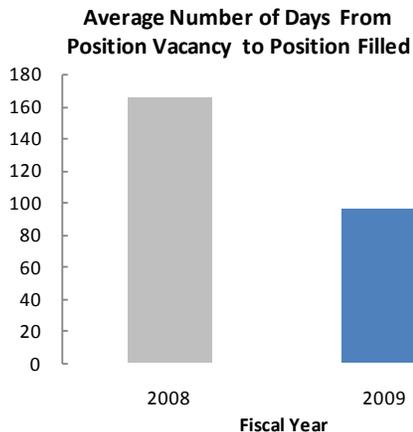
In FY 2009, SHA implemented multiple enhancements to the SHA Business Plan system to make it more user-friendly. SHA had thoroughly investigated multiple business intelligence reporting tools in order to achieve the objective of more transparent government, promote accountability to front-line employees and streamline data reporting with StateStat requirements. After eight months of research, SHA procured a software product that allows end users to graphically analyze their data through dashboards that connect to silo data sources. This software was implemented as a pilot program in the maintenance area by connecting to three databases. This produced a dashboard that graphically represented the performance of each of SHA's 28 maintenance shops. SHA personnel trained various divisions within the agency to educate users on the benefits of business intelligence reporting tools. Several SHA offices are interested in implementing the software in their offices.

PROCESS IMPROVEMENT AND MANAGEMENT

SHA identified dozens of process improvements through internal assessments, business plan performance results, external customer surveys, internal employee surveys and process improvement teams. Some of those improvements included:

- The new ARRA funds necessitated development of new processes, controls and reporting in order to meet the requirement that states had to ensure through FHWA that projects were federally eligible for ARRA funds and obligated within 120 days or the funding would be redistributed to other states. Maryland was the first state in the nation to start an ARRA project (MD 650), announced by the President. Further information later in this chapter.
- The telephone services were reviewed and SHA accrued substantial savings as compared to the previous fiscal year.
- SHA switched from the current phone system to a Voice over Internet Protocol, which saved hundreds of thousands of dollars in toll charges.

- The Landscape Operations Division digitized 16.4 acres of overall thistle inventory. This was incorporated into the map books which helped the district maintenance shops locate thistle, an invasive species targeted for eradication, more quickly.
- The Minority Business Enterprise (MBE) reporting process was reviewed and several process improvements were implemented, including use of contract award date instead of contract execution date to enter MBE data into FMIS and entry of MBE award subcontracts data into FMIS when a blanket purchase order is created instead of when MBE work is started. This allows more timely entry of MBE data into FMIS, from which MBE data is reported.
- During annual credit card and procurement audits, SHA developed a small procurement audit findings matrix which lists the maintenance shops and the 12 SHA small procurement policies and procedures most often cited for non-compliance in previous audits. This allows SHA to concisely track compliance with these small procurement policies and procedures.
- The recruitment and hiring process was revised, and the average number of days to fill a vacancy from position vacancy to position filled decreased 57 percent, from 166 in FY 2008 to 96 days in FY 2009.
- The SHA Vacancy Control Team produced SHA-wide best practices procedures.
- The university research process for developing agreements with state universities was reviewed and streamlined. The process time decreased from four months to three or four weeks.
- Utility companies asked for consent to include their work (electric, telecom, etc.) in the ICC contract (through signed agreements), thereby drastically reducing extensive delays and excessive costs.
- The process of ensuring that all new supervisors receive timely new supervisor's training was reviewed and a process was put in place so that employees will be enrolled within six months to one year of hire or promotion into a supervisory position.
- SHA has a continuous partnership with many of its industry partners to address quality at all levels and areas in the highway community through the Maryland Quality Initiative (MdQI). MdQI hosts an annual conference, the theme of which changes annually, depending on issues important to the highway industry. SHA co-hosted the 2009 MdQI conference, whose theme, "Going Green – Moving in New Directions," highlights the importance of the environment. MdQI added a new "green" transportation award in FY 2009.



CUSTOMER COMMUNICATIONS, SERVICES AND SATISFACTION

See the Customer Communications, Service and Satisfaction chapter of this report for complete details.

WORKFORCE PLANNING AND DEVELOPMENT

Developing employees is a high priority at SHA and is discussed later in this chapter.

Employee Satisfaction and Well-Being

EMPLOYEE SATISFACTION

The annual SHA Employee Survey is administered every year to serve as a barometer of employee satisfaction with SHA as an agency, and to ascertain employee views on topics such as leadership, strategic planning, human resources management and process management.

FY 2009 saw a slight decrease in the survey response rate, falling to 73 percent, down from 76 percent in 2008. However, this response rate is still very encouraging, and illustrates that the majority of SHA’s employees would like the organization to know their viewpoints.

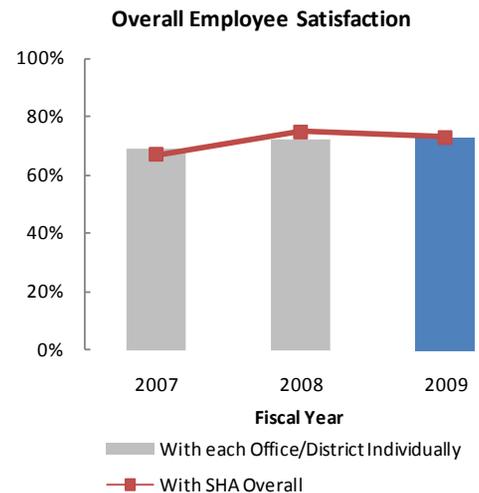
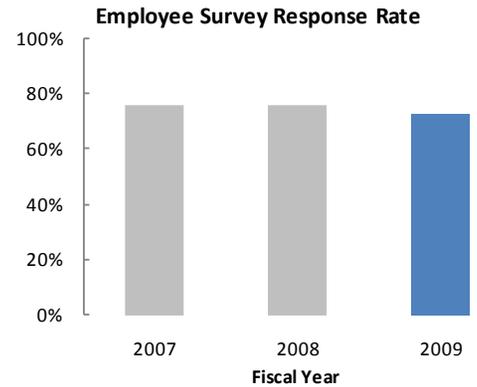
Overall satisfaction with SHA saw a slight decrease to 73 percent in 2009, down from 75 percent in 2008. However, satisfaction with individual offices/districts increased to 73 percent in 2009, up from 72 percent in 2008. Given the difficult fiscal circumstances under which SHA has been operating for the last two fiscal years, this relatively high satisfaction score indicates that SHA still does its very best to provide the best possible work environment regardless of resource constraints.

Some of the findings in FY 2009 include:

- Satisfaction with supervisors continues to be a major strength for SHA. SHA employees feel that their supervisors are accessible to them, treat them with respect and are technically competent at their jobs.
- Recruitment and communication, areas that were identified for improvement in 2008, continue to be a widespread concern in SHA. However, both areas have seen increases in satisfaction levels in 2009, indicating that SHA’s efforts undertaken in 2008 in improving our recruitment and hiring process and in establishing a more effective two-way communication process have been effective.
- Nearly all vital few opportunities for improvement identified in 2008 saw an improvement in their satisfaction levels in 2009.

WORKPLACE SAFETY

Workplace safety is extremely important to SHA. The Safety Management Team continues to work aggressively to prevent injuries. The number of recordable injuries decreased from 186 in FY 2008 to 114 in FY 2009.





However, while there were fewer injuries, the severity of injuries increased, resulting in more lost workdays. SHA began a campaign to improve employee reporting of injury to IWIF. This campaign will continue until 95 percent of injuries are reported to the Injured Workers' Insurance Fund within three days. Managers worked with those employees with more than three claims a year to ensure the employees have the proper training and supervision to prevent further injuries.

The Temporary Modified Duty program was developed by the Safety team and continues to assist those employees who are injured on the job. The program helps bring employees back to the workplace on a restricted basis until they are released to full duty by their medical provider. In FY 2009, injured SHA employees worked 112 days on restricted duty, as opposed to lost work days.

WELLNESS PROGRAMS

SHA assists employees with tools to make good decisions with their health and well-being. A resource guide was developed to assist employees with obtaining critical services statewide in healthcare, employment, housing foreclosures, debt management, family/domestic abuse and legal services. The following initiatives were offered:

- Health benefits fairs
- Wellness programs
- Work-life fairs
- Telecommuting, flex time and compressed work week
- Transit subsidies
- Career counseling and planning services
- Employee assistance
- Nursing mothers' room

ETHICS AT SHA

Ethics and adherence to all Maryland public ethics laws is important at SHA. For the past several years, SHA employees have been asked to read and acknowledge information on the Maryland public ethics law and the reporting of fraud, waste, abuse and misconduct. SHA has its own confidential fraud hotline to which employees may anonymously report suspected instances of fraud, waste, abuse and misconduct. Employees also receive annual guidance on ethical behavior and the acceptance of gifts and on filing of financial disclosure statements.

Employees new to SHA or new to filing these financial statements receive ethics training, and SHA continued to comply with the State Ethics Commission for filing the statements.

In FY 2009, SHA issued guidance on two issues that arose: managing SHA employee organization funds and gift cards received when ordering from certain vendors. SHA had no ethics violations on the triennial 2009 (and 2006) Legislative Audits.

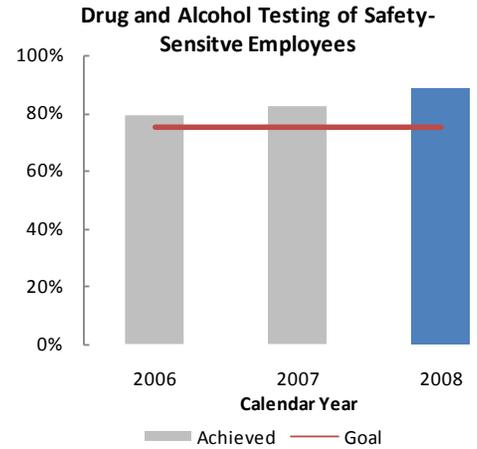
SAFETY-SENSITIVE DRUG AND ALCOHOL TESTING

SHA conducts drug and alcohol testing of 75 percent of its safety-sensitive employees on a continual basis and has met or exceeded the federally mandated goal since CY 2004. SHA tested 89 percent of these employees in CY 2008.

MEDICAL SERVICES

The SHA physician provided direct consultation on 211 employee or facility cases which had medical issues. This included the referral of 104 employee cases to either the MDOT Medical Advisor (per COMAR regulations) for workability exams or related medical services. Many of these exams resulted in medical clearance for the employee to safely return to work or return to full duty, thus supporting employee productivity while minimizing health and liability risks.

Throughout FY 2009, the SHA physician provided consultation to facilities, divisions, and employees on issues of medical concern in the workplace. Following the February 2009 flooding at the SHA headquarters complex, he was actively involved in air and water testing during the restoration process. He also contributed to the SHA team which responded to seasonal and H1N1 flu. The SHA physician provided three emotional trauma debriefings to groups of SHA employees following incidents that involved the loss of life.



Workforce Planning and Development

WORKFORCE RESOURCE CENTER

The Workforce Resource Center, an internal website, allows employees to obtain resources for career-mobility, career-planning, training and job opportunities. This website was revised based on a survey and as a result, employees reported an 86 percent satisfaction rate, up from 51 percent prior to the survey.

WORKFORCE PLANNING AND DEVELOPMENT

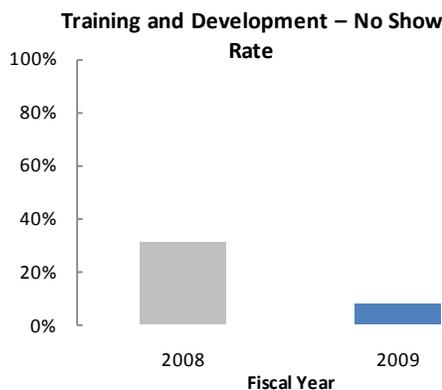
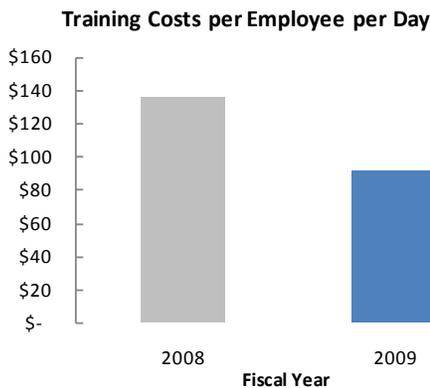
SHA remains committed to the development and enhancement of the skills of its workers. Workforce planning is a comprehensive, multi-year effort. The Workforce Planning and Development Committee developed a charter and mission to “lead the strategic collaboration for Workforce Planning and Development to ensure the right people with the right skills are in the right place for the State Highway Administration.” The committee is comprised of representation from the three SHA University colleges in order to identify

workforce needs and implement strategies to align SHA’s workforce with its business objectives. The committee has begun determining workforce planning priorities through the framework of the SHA Business Plan. It is also establishing performance metrics that monitor pertinent workforce data, as well as demonstrate workforce planning and development project outcomes and accomplishments.

SHA UNIVERSITY

SHA University is organized around SHA’s three colleges, each representing one of SHA’s key functional areas: operations, planning and engineering, and administration. SHA University provides a strategic link between the organization’s professional development activities and workforce planning. It ties the training function to the strategic business needs of the organization. In FY 2009, the following accomplishments were achieved:

- SHA University became fully operational in January 2009. A university catalog and curriculum guide and a multimedia orientation program were made available to all employees via the SHA Intranet. Additionally, all seven districts were provided with the orientation program and university catalog on CD-ROM. Over 550 curricula have been identified for SHA’s functional classifications.
- Professional Development Plans (PDPs) were completed for 2,362 employees or 74 percent of SHA employees. This represents an increase of more than double the number of employees from FY 2008, in which 35 percent of the employees developed a PDP.
- An automated download process was instituted to improve data integrity linking our learning management system (LMS) with MDOT’s Human Resource Information System. As a result, our LMS employee data is automatically updated, greatly reducing the time required for this task.
- SHA reduced the cost per employee day of training to \$92.31. The FY 2008 cost was \$138. Savings were a result of increased efficiencies and process improvements.
- SHA addressed the issue of training attendance with No Shows (employees who did not notify SHA that they would be unable to attend scheduled training events). As a result of a new policy instituted in FY 2009, SHA improved training attendance to over 95 percent of all enrollments.
- SHA, in partnership with the University of Baltimore, received a federal grant of approximately \$350,000 under the Transportation Education Development Pilot program. These funds are dedicated to the completion of a robust online workforce development tool, skill assessment instruments, curricula development, career planning guides, an online competency navigator and a best practice report on corporate universities in transportation.



VI Organizational Effectiveness

- Travel costs associated with attending training were minimized by providing training at 18 regional locations throughout the state. Videoconferencing was introduced as another mechanism to expand delivery of training.
- SHA had 3,933 core course training completions in FY 2009. These core courses include sexual harassment, workplace and domestic violence, ADA awareness, limited English proficiency, diversity awareness and driver improvement training. In addition, over 700 additional trainings were completed in safety-related subjects and 200 training completions in incident management. These courses meet agency, state and federal mandates.
- SHA conducted the successful pilot of an online leadership development program called e-LEAD. Participation was conducted entirely online. A capstone project resulted in the completion of a new online learning resource called Professional Resource for Individual Developmental Enhancement (P.R.I.D.E.).
- The Graduate Engineer Training program continued its success as one of the premier programs nationally with over 590 training completions. This program provides skill development for newly hired transportation engineers and includes a rotation program to expose all engineers to the full range of SHA's core business functions.

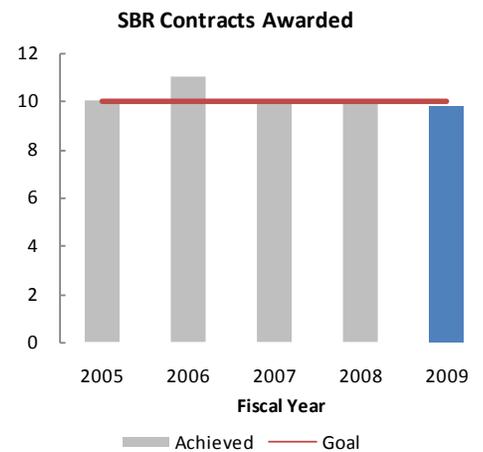
Small Business Reserve (SBR) and Minority/Disadvantaged Business Enterprise (M/DBE)

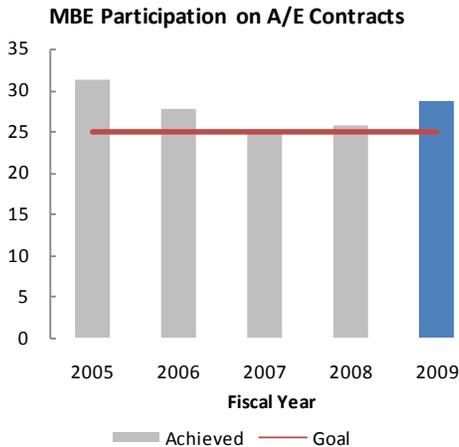
SMALL BUSINESS RESERVE

SHA attained 9.8 percent in small business reserve expenditures; the state-mandated goal is ten percent. This 9.8 percent is in spite of major reductions to state-funded maintenance programs, from which many SBR contracts are awarded. Overall, SHA paid more than \$23 million to SBR companies. With the exception of FY 2009, SHA has met or exceeded the ten percent rate since the program inception.

M/DBE AWARDS

SHA achieved 22.29 percent in awards to M/DBE firms in all possible procurement areas, including A/E, construction, maintenance, professional services, credit card, etc. The state goal is 25 percent. SHA is limited in MBE availability in Western Maryland and the Eastern Shore. There are also a limited number of M/DBEs available to perform heavy road construction and related maintenance and bridge functions, making the overall percentage of the MBE program difficult to positively influence. With all these factors taken into account, 22.29 percent shows SHA's commitment to trying new means to increase our overall numbers and that these initiatives have had a positive effect on our contracting program.





M/DBE PARTICIPATION ON A/E CONTRACTS

SHA achieved 28.7 percent MBE participation on the 84 Architectural and Engineering (A/E) consultant contracts, which exceeded the state goal of 25 percent. MBE/Women Business Enterprise (M/WBE) firms received \$63.6 million of the total awards. Of those totals, \$14.3 million, or 6.5 percent of total A/E contract dollars, were awarded to MBE/WBE firms as “prime” consultants. SHA has met or exceeded this goal since FY 2005.

DBE COMPLIANCE REVIEWS

A total of 36 DBE compliance reviews were completed, which exceeded FHWA expectations of 30 compliance reviews per year. The ICC project conducted 15 reviews and SHA personnel conducted 21 reviews. This is the third year in a row that SHA has surpassed FHWA expectations.

ICC DBE COORDINATION GROUP

SHA participated in an ICC DBE coordination group with the ICC Civil Rights Office to discuss civil rights, DBE assistance via outreach and compliance monitoring on the ICC project. From October 1, 2008, to June 30, 2009, 17 new M/DBE firms began to do business with SHA.

TITLE VI TRAINING

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color and national origin in programs and activities receiving federal financial assistance. SHA conducted Title VI awareness training to several SHA offices, which included general Title VI information, a description of roles and responsibilities, the purpose of Title VI compliance reviews, and an explanation of the review process.

OUTREACH EVENT PARTICIPATION

SHA participated in nine outreach events geared toward assisting M/DBEs in doing business with SHA. In FY 2008, SHA participated in 62 outreach events, well above its internal goal of 12 events. This year’s decrease was due to budget constraints.

Financial Management

SHA maintained strong oversight of fiscal resources in FY 2009 and managed within budget. Both the capital program and operating program budgets were significantly reduced during the fiscal year, but closed out the year within 95.94 percent and 97.4 percent expended, respectively.

ARRA

Maryland was the first state in the nation to obligate ARRA funds and to meet the 50 percent obligation requirement within 120 days. SHA was prepared the moment ARRA funds were available to place the first project under agreement in the nation and issue a Notice to Proceed. SHA began a \$2.1 million safety and resurfacing project along a 1.1 mile section of MD 650 (New Hampshire Avenue) in White Oak, Montgomery County, which was announced by the President. This project was part of the Phase I list of projects that were obligated within 20 days after the funds were allocated. Under the ARRA, states had to ensure through FHWA that projects were federally eligible for ARRA funding and obligated within 120 days or funding would be redistributed to other states. Phase I of Maryland’s ARRA highway projects totaled more than \$224 million. The total ARRA funding allocated to Maryland’s highway program was \$431 million.

INVOICES PAID

SHA exceeded its goal of paying 98 percent of vendors within 30 days of receipt of the invoice and achieved an average of 99 percent for FY 2009. SHA has met or exceeded this 98 percent goal since FY 2004.

MEGA-PROJECT FINANCIAL MANAGEMENT

SHA continued its strong management of the financial aspects of the \$2.56 billion ICC project, including the ICC Financial Plan, weekly billing, financing efforts, and reporting to MDOT, MDTA and FHWA.

FEDERAL INACTIVE PROJECTS

SHA conducted monthly meetings with FHWA to address inactive projects and other federal-aid project issues. This partnership allowed SHA to meet the five percent inactive project goal for FY 2009.

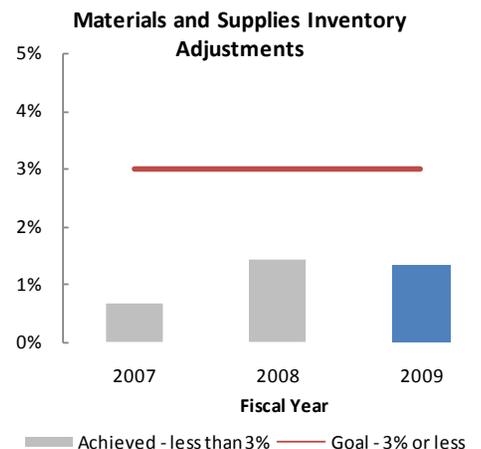
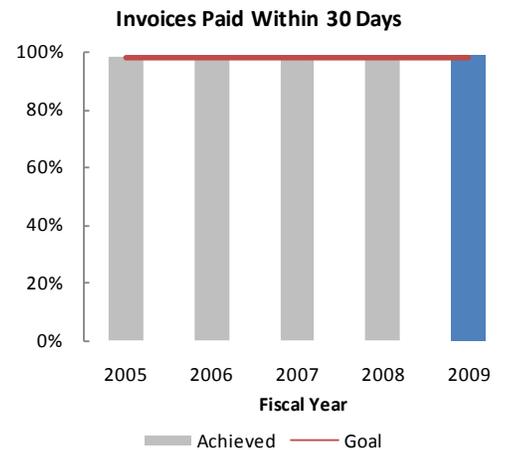
INVENTORY ADJUSTMENTS

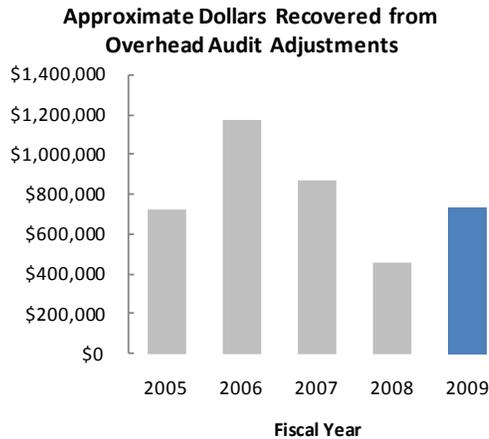
SHA maintained the number of adjustments to the materials and supplies inventory to three percent or less, achieving a 1.33 percent adjustment rate on average for FY 2009. This is the third year in a row that SHA achieved this goal.

Procurement and Contract Management

BOARD OF PUBLIC WORKS

SHA presented 224 SHA items to the Board of Public Works. This included contracts for A/E (84 contracts totaling \$221.7 million), maintenance facilities, construction, and numerous real property conveyances and road transfers. SHA has the largest number of items before the BPW of all the transportation modes.





FUND RECOVERY

SHA recovered approximately \$727,698 from A/E consultants for overhead audit adjustments. SHA has recovered approximately \$4,589,230 since FY 2004.

CONTRACT OVERSIGHT

SHA provides continuous oversight of consultant contracts to ensure that costs are reasonable and that consultants are complying with all applicable laws and regulations. SHA conducts audits of SHA's construction projects, more than 200 A/E consultants, and various SHA activities and functions that are performed throughout SHA. SHA completed 72 pre-contract reviews, audited 17 ongoing construction projects, completed 31 A/E contract compliance audits, and reviewed and approved 172 overhead rates for A/E consultants.

SHA's two mega-projects, the WWB and the ICC, were also continuously audited. SHA issued two audit reports on A/E consultants working on the WWB project and conducted eight routine audits of WWB construction projects. SHA performed four audit tasks on the ICC project and audited the ICC General Engineering Consultant. An independent CPA firm working under SHA's direction completed 23 invoice reviews and 15 overhead reviews for consultant firms working on the project.

PROCUREMENT TRAINING

SHA understands the importance of procurement training for its employees and provides frequent training opportunities. It provided basic procurement training for 122 employees and basic procurement certification training to 91 employees. It also developed a comprehensive training program to educate users in FMIS.

SOLE SOURCE PROCUREMENT

SHA is working to implement a sole source procurement team. The process is being proposed for non-emergency sole source procurements with an anticipated value of greater than \$25,000. Per COMAR regulations, sole source procurements may be utilized if the procurement officer determines that a competitive source selection method cannot be used because there is only one available source. Procurements greater than \$25,000 require Board of Public Works approval.

PROCUREMENT OVERSIGHT

SHA is conducting procurement and credit card audits of all 28 maintenance shops to determine compliance with procurement regulations. A small procurement audit findings matrix was developed that is being used to track compliance with the 12 SHA small procurement policies and procedures most often cited for non-compliance in previous audits.

Six shops were audited in FY 2009 with varying compliance results – overall, compliance came in at 78 percent. SHA has put a process in place that requires those shops that had low compliance ratings to develop an action plan to ensure corrective action is taken and that subsequent audits reach a higher compliance rate. SHA audit, finance and procurement and contract personnel meet quarterly to identify at-risk areas.

SHA developed a shop expenditure report that captures total dollars by department and identifies dollars spent with each vendor. This report assists with ensuring that proper contract procedures are followed. This report was shared with the district financial officers for monitoring of shop expenditures.

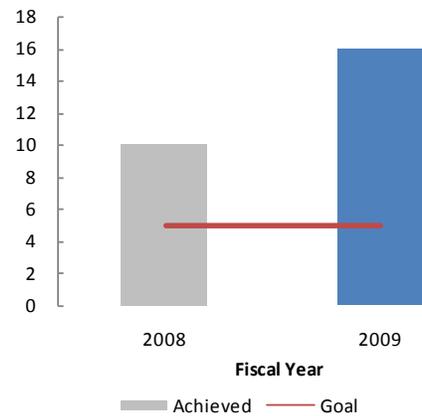
Information Technology (IT) / Automation

IT IMPLEMENTATIONS OR ENHANCEMENTS

Technology is constantly changing and SHA implemented or enhanced significant changes to 16 IT systems. These applications included:

- SHA Customer Care Management System (CCMS) implemented.
- Cost Estimate module of the OREMS application enhanced.
- Automated Hauling Permit System functionality increased and can now issue permits for MDTA and the City of Baltimore.
- Cashier’s Office System and Corporate Purchasing Card System enhanced in response to the recent legislative audit findings.
- SHA’s Internet Redesign project completed which incorporated Governor O’Malley’s revised branding guidelines for state government websites to allow for more flexible management of web content.
- SHA districts/shops Material Safety Data Sheets (MSDS) software (Internet-based) and training provided for the safety of SHA personnel; this software is supporting safety compliance with federal and state regulations.

IT System Enhancements



HARDWARE MANAGEMENT

- Reduced the number of physical servers by 25 percent in our Network Room, which reduced energy costs.
- Implemented state-of-the-art server hardware, called blade servers, which are smaller and more energy efficient than traditional servers.
- Implemented the off-site storage of electronic data between HQ and SOC.
- Reduced the amount of energy used by computer monitors when they are not in use, by automatically putting them in a low-power usage state.
- Migrated from a tape-based backup system to a disk-based backup system, reducing overtime and operating costs.

IT EFFICIENCIES

- Implemented Microsoft Office 2007 for all SHA computer users. This ensures that our office software suite is compatible with our customers and business partners for easier file sharing.
- Improved customer access to information on projects and collaboration by leveraging the use of Microsoft SharePoint software technology.
- Implemented Maximo Service Desk for the IT Liaisons.
- Continued with an expansion of the pilot videoconferencing in the Office of Traffic and Safety and District 6.

Project Delivery

CONSTRUCTION SCHEDULES

A total of 75 percent of SHA's contracts met the Open to Traffic (OTT) date give in the NTP. Three of the four projects opened to traffic early, by six months, one month, and three weeks. The project that did not meet the original OTT date was set back due to a utility delay, where an underground signal power line required relocation.

DESIGN SCHEDULES

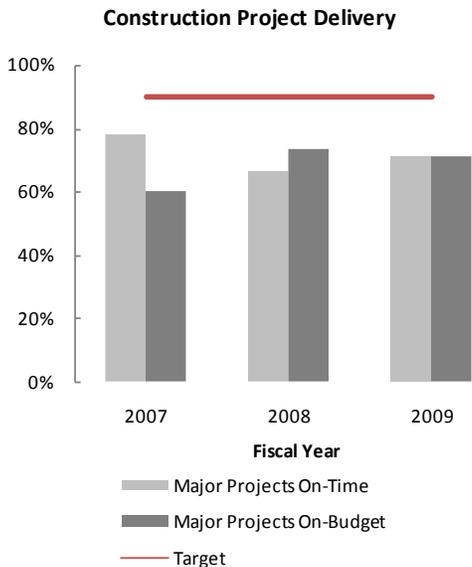
A total of 71 percent (five of seven) major capital improvement projects were advertised within 30 days of the estimated Advertisement date initially established at the time of construction funding. One of the projects that did not meet this deadline was delayed to incorporate stipulated price provisions into the contract (the first project using this type of procurement at SHA). The other project was delayed over an issue of federal funding participation on certain items in the contract.

CHANGE ORDERS

SHA maintained construction change orders at 8.3 percent of the total construction contract expenditures. Challenges in meeting this goal were the current economic climate and changes in reporting. Previously, only change orders over \$5,000 were reported and tracked, although during FY 2009, SHA began tracking all change orders. In addition, FY 2009 contained large settlements especially for the WWB project.

COST ESTIMATES

A total of 71 percent (five of seven) major capital improvement projects had low bids that were within 110 percent of the initial amount of construction funding approved. To address this, SHA evaluates factors that affect cost estimates



annually and uses this information to update the cost estimating guidelines and constructability review checklists.

Continuity of Operations

SHA successfully relocated staff to alternate locations to perform day-to-day activities while conducting emergency repairs to the 707 and 211 Headquarters complex. These actions were necessary to respond to a 30-inch water main break on Madison Street in Baltimore City on February 8, 2009, that flooded the complex, rendering the building without full power and water. The complex suffered extensive damage to the sub-basement, basement and first floors. Electricity was restored and employees back at work within two days. First floor and basement offices were temporarily relocated to the 211 building.

Floodwater pooling near the front entrance at SHA headquarters, which caused extensive damage to the sub-basement, basement and first floor.



Environmental Compliance and Stewardship

Goal: Develop and maintain Maryland state highways in an environmentally responsible manner

Highlights of SHA's Accomplishments

- MDOT agencies, with extensive involvement by SHA, signed an agreement with the U.S. Environmental Protection Agency (EPA) to conduct their own environmental assessments and disclose violations. Learn more about it at www.epa.gov.
- SHA implemented an innovative approach to mowing in sensitive habitat which received world-wide attention in national and international media: "Using goats to maintain turf in an environmentally sensitive area is not only an innovative idea, it clearly demonstrates our vision of a greener highway system," said Neil Pedersen.
- A 2.4 kilowatt wind generator was installed as part of an environmentally friendly energy pilot study to learn through practical experience what is involved in planning, financing, designing, procuring, constructing, monitoring and maintaining a wind energy generating system specifically for public agency use. Data will be collected and used to project the cost benefits and design opportunities and constraints of larger systems requiring higher levels of investment.

Overview

SHA's approach to environmental stewardship evolved substantially in FY 2009, moving from an emphasis on environmental compliance to the beginning of creating an environmental stewardship culture. This culture is built on a four-pronged approach:

- Maintain a comprehensive program that balances both compliance and stewardship with a commitment by agency leadership;
- Integrate environmental programs with technology to achieve the highest possible benefit;
- Use a collaborative approach based on public/private partnerships to identify and implement innovative solutions;
- Continue to be dynamic in order to adapt to changing needs and resources over time.

SHA's Sustainability Program

In 2009, SHA began developing a strategic plan for sustainability. This plan will outline SHA's vision, mission, goals, objectives and action items to incorporate sustainability in all aspects of the organization. It will facilitate shaping SHA's contribution to the future of transportation in Maryland. The goal of this program is to develop a mindset within SHA in which every decision, action or project undertaken by SHA is done in the context of what their effects will be on Maryland's environment, communities and economy in the next 50 to 100 years. The plan will support MDOT initiatives and the Climate Change Action Plan developed by the Maryland Commission on Climate Change.

Compliance with the National Environmental Policy Act (NEPA)

In FY 2009, SHA’s Environmental Planning Division processed 453 projects via programmatic categorical exclusions (PCE), completed 25 projects as categorical exclusions (CE) and prepared 47 reevaluations (19 for major projects). SHA used the PCEs as part of efforts to streamline the NEPA process, especially for minor projects and nearly 95 percent of all projects for which CEs are required were processed using the programmatic approach. SHA also received NEPA approval for two project planning studies—MD 28 (Rockville Town Center) and US 15/ Monocacy Boulevard.

“Green” Infrastructure

SHA's nomination of the "Green Infrastructure Assessment and Approach" utilized for the US 301 transportation improvements project was accepted by AASHTO’s Technology Implementation Group, along with the Texas DOT nomination for a similar technology, as a national leading example to promote to other states. The technology is two-fold in that it is a Geographic Information System (GIS) tool developed by the Maryland Department of Natural Resources (DNR) to highlight Maryland's network of important resources as well as The Conservation Fund's approach on how to best utilize the GIS tool to optimize chances of supporting sustainable ecosystems.

Just as our highway networks are planned for long-term use with safety and mobility of its travelers as our main goal, our natural resources network must also be planned (ideally in unison with human development) to preserve important critical natural/cultural resources for sustainability of our ecosystems which directly affect human health and well being. SHA, DNR and The Conservation Fund will jointly be “selling” this technology to other state DOTs for use in their transportation planning processes and efforts.

Environmental Preservation as an Integral Part of the ICC

Protecting the diverse and sensitive natural environment that will be traversed by the ICC requires extraordinary focus and effort. The ICC’s \$370 million environmental program – more than 15 percent of the project’s estimated cost – is both unprecedented in scope and cutting edge in approach. Some environmental enhancements included:

- Two additional air quality programs were added to enhance SHA’s environmental stewardship program in December 2008 as part of a negotiated settlement with the Environmental Defense Fund. The two programs will strengthen the ICC’s mitigation and stewardship. The package included an unprecedented level of compensatory mitigation to replace and

The ICC’s \$370 million environmental program is unprecedented and cutting edge in approach.



enhance the impacted segments of the environment and communities as well as fund more than 60 environmental stewardship projects to correct environmental problems caused by decades of past development in Montgomery and Prince George’s counties.

- A dedicated forest conservation area with a contract specifically for the purpose of planning reforestation was initiated in FY 2009 and more than 700 acres of reforested land to create new forest habitat will be planted.
- An undisturbed 19th century farmstead with hidden ritual caches associated with African folk practices was discovered by a team of SHA archeologists in a heavily wooded area being prepared as part of the ICC. Historic records confirmed that Melinda Jackson, an African-American former slave who purchased the home in 1869, owned the 8.75 acre property - just big enough to grow crops and raise livestock to support her five children. The results of these findings will be shared with the public in displays and through Montgomery County schools.

SHA's Climate Change Program

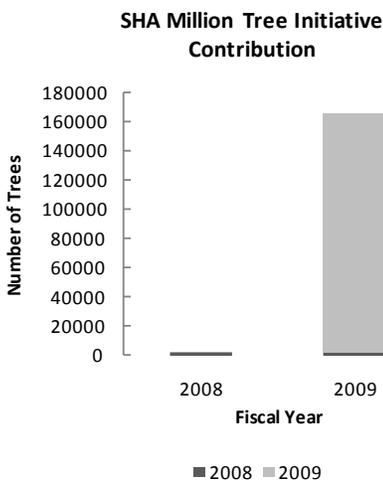
In 2009, SHA began development of a climate change program. As part of this program, SHA will develop a strategic action plan for climate change adaptation to address greenhouse gas reduction efforts. Efforts in 2009 focused on developing a GIS application to analyze lands in Maryland potentially susceptible to inundation and locate vulnerable infrastructure. The program supports MDOT initiatives and the Climate Change Action Plan.

Maryland: Smart, Green and Growing

ONE MILLION TREE INITIATIVE

SHA is committed to building an environmentally friendly highway system and supported many programs to plant trees and native vegetation along Maryland roadsides. SHA worked together with the DNR, FHWA, and the Department of Public Safety and Correctional Services (DPSCS) to plant trees along Maryland roadsides and in state right-of-ways. SHA is funding the trees and materials while DNR is funding the labor, which is provided by prison inmates from the DPSCS. The trees are located on nearly 250 acres at eight state parks across all four regions of Maryland (Central, Southern, Eastern and Western Maryland). In FY 2009, 162,881 trees were planted. An additional 3,093 trees were planted in FY 2008 when the program began. The trees are hearty native species that are sustainable over many years.

Another SHA environmental program, called the Partnership Planting program, is a collaboration of civic groups to plant trees, flowers and shrubs in communities.



The partnership effort has contributed 1,517 trees to the overall One Million Tree effort since the initiative began in FY 2008.

WETLAND AND STREAM RESTORATION

Since many of Maryland’s state highways were built prior to the establishment of regulatory controls to protect tidal and non-tidal wetlands, SHA proactively restores streams and wetlands. Although these projects are subject to availability of funding, SHA was able to restore 89 acres of wetlands in FY 2009. Since FY 2007 (beginning of the current SHA Business Plan cycle), SHA restored 156 acres of wetlands and 4.92 miles of streams (such as Tuscarora Creek) towards the overall goal of 200 acres and five miles by FY 2011.

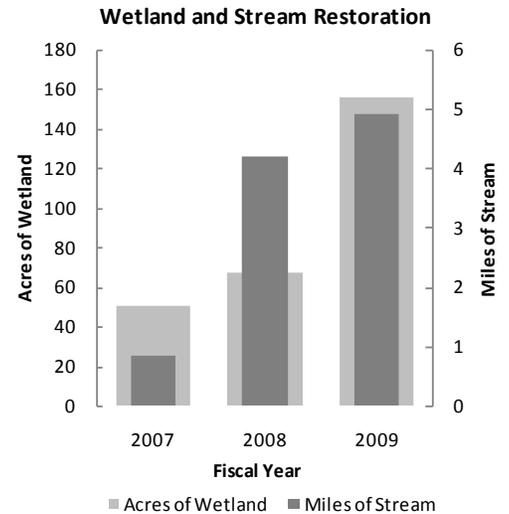
In one project of interest, SHA restored approximately six acres of forested wetlands at the Magness Farm in Harford County. The improvements will help improve water quality from highway runoff as well as provide a vital habitat for native wildlife. This effort also will allow the Magness Farm property to continue to thrive as an active dairy farm while protecting the headwaters of Deer Creek, one of many tributaries vital to the Chesapeake Bay watershed. To protect the new wetlands from grazing cattle near the headwaters of Deer Creek, SHA incorporated cattle crossings and fencing into the restoration plan. The fencing keeps cattle away from wetlands and the cattle crossings permit the cattle access to different pastures without harming the newly created wetlands and forested uplands.

INVASIVE SPECIES CONTROL/MEADOW RESTORATION

Two invasive species from Canada - thistle and phragmites - continue to be the prime focus of invasive species control. Contracts were awarded to perform native meadow establishment and exotic weed control along US 301 from the US 50/301 Split to the Maryland/Delaware line and to control callery pear/autumn olive invasive species along I-95 in Howard and Prince George’s counties. SHA also distributed invasive species map books to maintenance crews during the annual vegetation management update training session and sprayer calibration. Crews use the books to locate and treat thistle. New locations are hand-located and then later documented with a Global Positioning System.

SHA initiated several projects of note, some of which were possible because of additional ARRA funding:

- A two-year environmental preservation project along nearly 40 miles of US 301 in Cecil County in approximately 670 acres of highway roadsides and medians which will remove invasive species such as poison ivy, oriental bittersweet and other vines which can be seen climbing and engulfing trees along the roadsides. Exotic invasive trees and shrubs such as tree of heaven, multiflora rose, bush honeysuckle, russian and autumn olive as well as



noxious weeds such as canadian thistle and Johnson grass will also be removed. SHA will seed the roadside areas to restore the meadows with native, non-invasive species. The project will ultimately establish 123 acres of meadows important to the health of the Chesapeake Bay watershed.

- A project in Spring 2009 to replace invasive plants similar to those listed above with native species on 161 acres adjacent to I-83. Exotic and invasive vegetation that have overtaken and endangered native tree, shrub and wildflower plant communities important to the health of the Jones Falls watershed are being removed.
- A project along more than 14 miles of the I-95 corridor between MD 100 in Howard County and I-495 (Capital Beltway) in Prince George’s County whose goal is to eradicate invasive plant species and restore native vegetation along I-95 in Prince George’s and Howard counties. This project will benefit the health of the Patapsco, Patuxent and Anacostia rivers watersheds. SHA will seed approximately 45 acres of highway roadside to restore the meadows with native, non-invasive species.

HIGHWAY BEAUTIFICATION/WILDFLOWER PROGRAM

Highway beautification involves improving the appearance of the SHA highway network through landscaping, community planting, wildflowers and reforestation programs. SHA worked with communities to implement projects along state highways to enhance entrances to towns and neighborhoods. SHA exceeded its annual target of 125 acres of wildflowers by 86 acres in FY 2009. This was due in large part by strong second-quarter performance by the contractor on the Eastern Shore. Public outreach and unsolicited interest produced eight environmental enhancement projects that furthered SHA's highway beautification goals.

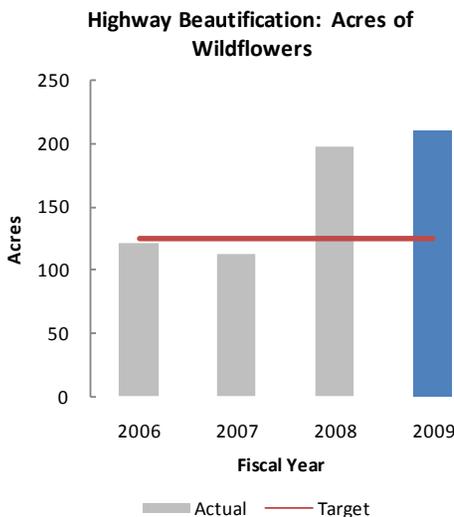
The wildflower meadow program is also gaining acceptance from the operations community within SHA as a means to find alternative treatments for areas that were once mowed. This increased interest is leading to the identification of suitable new sites.

GROWING....NOT MOWING

SHA is making Maryland roadsides “greener” through a mowing reduction program. This initiative restores natural meadows through the reduction of mowing along roadways. By allowing grasses to grow naturally, SHA will also reestablish vegetation and forested areas and enhance the environment while maintaining safety. SHA estimates a ten percent reduction in the total number of acres mowed annually – about 8,500 acres total.

Long-term effects include:

- More cost savings - Meadows and trees are low maintenance and do not require reseeding, fertilizer or pesticides year after year.



VII Environmental Compliance and Stewardship

- Improved water quality - Meadow plants and trees decrease stormwater runoff better than mowed turf, allowing for better groundwater recharge and reduced sediment in bodies of water.
- Improved air quality – The growth of more trees and plants will result in the further removal of carbon dioxide, which will replenish oxygen and reduce the effects of greenhouse gas emissions.
- Wildlife habitats - Meadow plants and trees attract small animals, birds and insects that are an important part of our ecosystem.

ENVIRONMENTALLY FRIENDLY MOWING

Amid the meadows and bogs that surround the \$40 million Hampstead Bypass in Carroll County, SHA enlisted a herd of 40 sheep and goats from a local farmer to begin a conservation grazing project to mow the turf while at the same time protecting the bog turtle (a threatened species) and not allow the grass to grow uncontrollably. This was done on approximately eight acres of meadows and bogs in Hampstead. Using traditional mowing methods could have led to a major disruption of the bog turtle habitat and could injure or kill the turtles. The goats graze the fields from mid-May until the beginning of September, which is the end of the mowing season.

Improving Water Quality and Protecting the Chesapeake Bay

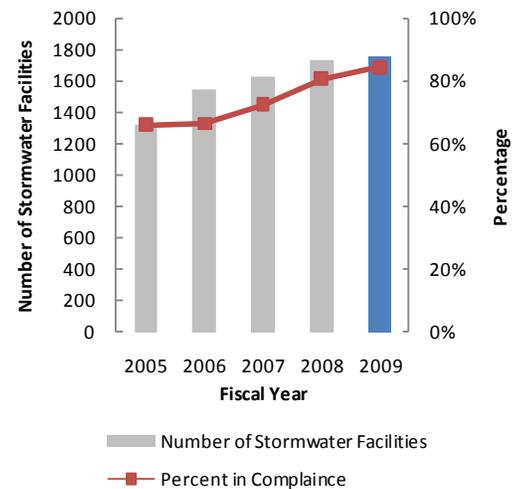
SHA’s contributions toward restoration efforts for the Chesapeake Bay are quite broad. They range from participating in policy discussions to providing project funding and other support to other agencies for environmental enhancement activities. In FY 2009, SHA participated in watershed registry meetings along with several representatives from the EPA, FHWA, US Army Corps of Engineers, and the Maryland Department of Environment (MDE) to discuss the collaboration of watershed mitigation and enhancement activities.

SHA is required to meet federal and state guidelines for National Pollutant Discharge Elimination System (NPDES) on all of its roads (known as NPDES compliance). NPDES is a national program to clean the water that is discharged from places; in this case, from an SHA highway. SHA maintains high standards for NPDES and annually achieves overall 100 percent compliance, as was the case in FY 2009. Stormwater management, one of the components of NPDES compliance, is a pond or filtration that catches large amounts of water and lets it gradually enter back into a watershed. Stormwater management facilities are an integral component of the NPDES requirements. In FY 2009, SHA achieved 85 percent compliance with stormwater management requirements, toward the overall goal of 90 percent functionality statewide in FY 2011.

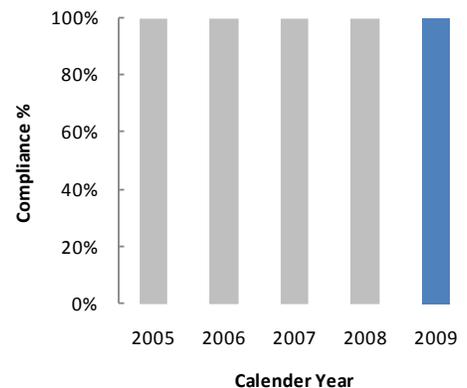
MD 32 stormwater management pond at Burntwoods Road.

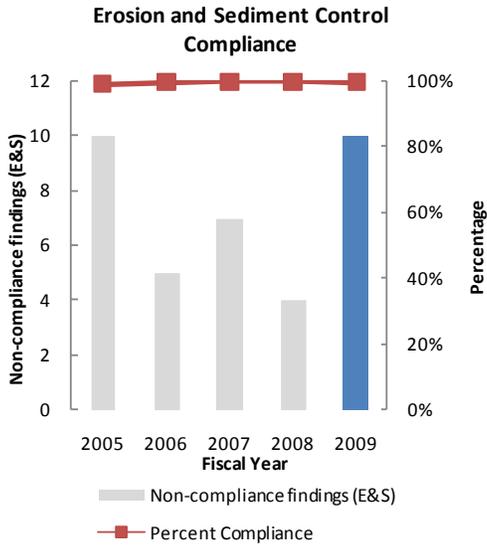


Stormwater Management Facilities



NPDES Compliance





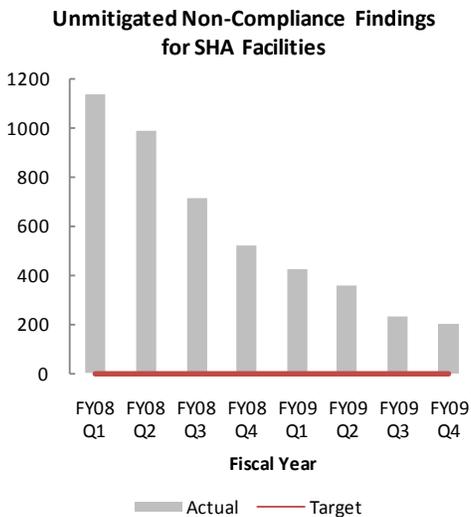
Sediment and Erosion Control

Achieving 100 percent compliance with sediment and erosion control requirements can be a challenge due to the complexity of the construction project and weather conditions. Projects with complex construction sequences, requiring coordinated phasing with traffic control and grading operations, can make it difficult to achieve 100 percent compliance. However, SHA continues to strive for 100 percent compliance because it is recognized that even a single non-compliance finding can be detrimental to the environment and may raise concerns for the public and regulators. Over 3,000 inspections were performed on SHA construction projects in FY 2009, with an overall rating of 99.7 percent.

Environmental Compliance at SHA Buildings

In Fall 2008, SHA and MDOT signed an agreement with the EPA to perform voluntary self-audits/self disclosures for environmental compliance issues associated with facilities and to dedicate funds for remedial action. This was EPA’s first agreement with a state transportation agency, setting the bar for others to follow. This agreement covers 102 SHA facilities statewide:

- Primary maintenance facilities
- Satellite maintenance facilities
- Salt and other storage facilities
- Materials laboratories
- Sign shop
- Landscape depot
- Rest areas
- Weigh stations



The agreement also includes a provision for SHA to have audits conducted by a third party. Audits began in March 2009. SHA expended a great deal of effort into training and internal assessment, and as a result, negative audit findings were minimal. Specific activities performed to ensure and report on compliance included:

- Creation of environmental standard operating procedures manuals and pocket reference cards for personnel at SHA maintenance shops. This included procedures for stockpiling materials in an environmentally responsible manner.
- Environmental awareness training for all employees.
- Implementation of an environmental management system to track activities and compliance data.

VII Environmental Compliance and Stewardship

- Use of GIS and aerial imagery to identify environmentally sensitive areas. This also proved a useful tool to communicate the importance of the environmental management system to district and shop staff.
- Routine facility inspections and training to keep inspectors knowledgeable of procedures.

Raising Environmental Stewardship Awareness in the Community

SHA took the opportunity of recognizing Earth Day in ways that would raise awareness among employees and the community about environmental stewardship:

- SHA celebrated the 20th Anniversary of the Adopt-A-Highway program. A special tribute was held for the volunteer groups that have been a part of the program for the entire 20 years.
- SHA hosted an Earth Day fair for employees, 22 second graders from the Green School of Baltimore and 12 high school students from the Harbour School of Baltimore. Participants viewed many types of native birds of prey, fish and other wildlife and demonstrations on environmentally friendly technologies.
- In addition, SHA, in partnership with industry, set up the annual MdQI training conference around the theme of environmental stewardship.

Environmentally Friendly Fuel Usage

SHA is committed to reducing fossil fuel dependence and improving air quality through the use of alternative and low emission fuels. In FY 2009, SHA completed the conversion of all SHA fuel pumps to alternative fuels. Biodiesel (B5) continues to be delivered to 100 percent of SHA shops.

Flex-fuel vehicles, alternative fuel vehicles, and hybrid vehicles have been introduced into the SHA fleet. As of FY 2009, all SHA diesel-powered vehicles and equipment use ultra low sulfur-bio diesel fuel.

SHA implemented a pilot project to determine the feasibility and the effectiveness of using "green" wind energy to help power SHA facilities with the installation of a wind turbine at the Westminster maintenance facility in Carroll County. This pilot energy project is producing sustainable energy that flows directly to the shop's power grid. The 60-foot tall wind turbine can generate as much as 2,400 watts of green energy and an average of 700 kilowatt hours of clean and renewable energy each month, resulting in a monthly reduction of more than 1,400 pounds of carbon dioxide that would otherwise be produced by coal-burning power plants.

A pilot wind turbine at the Westminster maintenance facility in Carroll County.

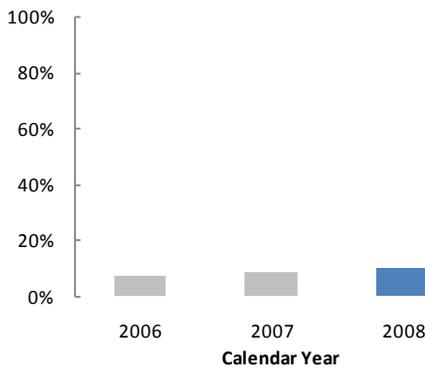


Recycling

SHA formed an internal recycling task force in January 2009 to bring together key SHA recycling personnel to become familiar with each others' roles, discuss current issues and identify ways to improve SHA's statewide recycling program. The task force took on such projects as evaluating the Department of General Services' recycling contracts due to be renewed and the formation of a network of "recycling champions." SHA recycles no less than 50 percent of its solid waste each year, a percentage far in excess of the 20 percent required under the Maryland Recycling Act. In addition to cans, bottles, paper and cardboard, SHA recycles used motor oil and fuel filters, antifreeze, signage and guardrail metal, batteries, tires, fluorescent lamps and lamp ballasts, computer and electronic equipment and landscaping debris.

The Recycled Materials Task Force includes members from industry, the University of Maryland, MDE and the EPA and continued to expand the use of recycled materials on SHA construction projects in FY 2009. The task force partnered with industry and materials producers for greater use of reclaimed asphalt and recycled concrete and began evaluating the use of foamed asphalt and steel slag for highway applications. The SHA Plan currently tracks recycled asphalt pavement (RAP) in hot mix asphalt (HMA) as a performance measure. The use of this recycled material in pavement increased from 8.5 percent in CY 2007 to 10 percent (110,051 tons) in CY 2008.

Percentage of RAP used in HMA



SHA assisted with the relocation of the Braddock Monument from SHA's right-of-way along US 40 Alternate near Braddock Heights.



Preserving Maryland's History

BRADDOCK MONUMENT

SHA assisted the Daughters of the American Revolution Frederick Chapter with the relocation of the Braddock Monument from SHA's right-of-way along US 40 Alternate near Braddock Heights. The monument shows General Edward Braddock and Lieutenant Colonel George Washington as they prepare to fight in the French and Indian War in 1755. SHA evaluated the monument's eligibility for inclusion in the National Register of Historic Places and the relocation with the MHT. The monument was determined to be eligible for the National Register as an excellent example of the patriotic work that the Daughters of the American Revolution perform and of the sculpture of Edward Berge. The monument, mounted on a boulder from Braddock Mountain, now stands in SHA's Middletown overlook.

WAR OF 1812

SHA began archaeology excavations in Bladensburg, in partnership with the University of Maryland and the MHT, to uncover crucial information about Maryland's role in the War of 1812 as we approach the bicentennial of the war.

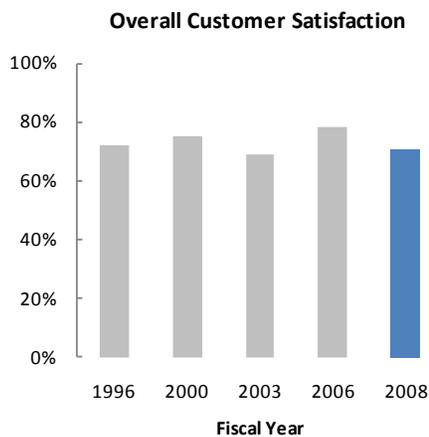
The first part of the first phase of the project involves the excavation of the Magruder House, believed to have served as a hospital after the Battle of Bladensburg in 1814.

Customer Communications, Service and Satisfaction

Goal: To improve communications with, service for, and satisfaction of our customers

Highlights of Accomplishments:

- SHA piloted an improved Customer Care Management System (CCMS) that provides better data analysis, tracking and performance measurement (full release in FY 2010).
- Maryland Public Television (MPT) aired the “Moving Maryland Forward, A Century of Modern Highways” documentary on November 13. Nielsen ratings confirmed that nearly 45,000 households (60,000 viewers) tuned in, exceeding Fox 45 ratings.
- Published “Moving Maryland Forward, A Century of Modern Road Building”, a popular history book by Harold Counihan. Copies were supplied to all Maryland libraries and public high schools.



External Customer Service Overview

The FY 2008 biennial customer service survey showed a drop in overall satisfaction with performance as well as a dip in satisfaction when contacting SHA. Based on this data and other indicators, SHA developed and implemented a strategic plan refocusing on our customer service efforts. SHA adopted a new customer service vision, *Customer Driven...Now More Than Ever* in Spring 2009. Employees are able to relate to the vision and it demonstrates SHA’s commitment to customer service.

- SHA developed a Customer Bill of Rights informing customers of the service they can expect when working with SHA.
- Customer Service Standards were revised and/or developed and implemented:
 - ◆ Correspondence
 - ◆ Customer Response Timeframes
 - ◆ Media Policy
 - ◆ Public Information Act law
 - ◆ Public Meeting requirements
 - ◆ Telephone salutation
 - ◆ E-mail etiquette
 - ◆ Voicemail regulations
- At employee town hall meetings, senior managers presented a Customer Service Awareness training course to refresh SHA’s cultural expectations and introduce the Customer Bill of Rights and Customer Service Standards. Consultants also reviewed the presentation online to become familiar with SHA’s customer service expectations and standards.
- Established a Customer Care Coordinator in each office/district. The CCC’s serve as the point people within their offices communicating customer

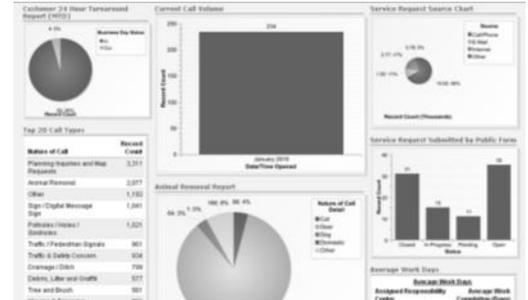
service and CCMS updates. CCC's monitor service request tickets and ensure resolution as well as provide one-on-one training and knowledge management.

Customer Care Management System (CCMS)

- A new version of SHA's CCMS was launched in the summer of 2009. The version is web-based and includes reporting and many enhancements to improve employee utilization.
- Two online training courses, basic and advanced were developed. Users can complete the online training courses at their convenience at their own PCs eliminating the need and cost of travel, training materials, and facility costs.
- User manuals for CCMS were also created.
- A total of 55,542 transactions recorded in CCMS for FY 2009:

SHA Customer Contacts "By the Numbers" for Fiscal Year 2009	
Motor Carrier Permits Issued and Used:	152,271
Communications to Customers and Responses to Inquiries Regarding Road Conditions:	46,365
"On-the Road" Assistance:	32,932
Traffic Signal Repair Requests Fulfilled:	16,197
Map Requests Fulfilled:	6,066
Office of Real Estate Requests Fulfilled:	5,790
Media Inquiries/Contacts:	7,522
Cashier's Office Purchases:	2,130
Access Permits Issued:	210

A new version of SHA's Customer Care Management System was launched in 2009.



Social Media

- SHA launched the Choose Safety For Life Facebook page featuring former Ravens player Jonathon Ogden. Through this site, we were able to reach out to hundreds of Maryland drivers, pedestrians and cyclists. The site was used to host a public service announcement contest for teens to develop a safety skit for other teens. Nearly a dozen schools entered. CSFL Public Service Announcements were also posted on the page. A similar presence was established on MySpace.
- SHA began a Twitter pilot for the Presidential Inauguration in January 2009 in anticipation of the heavy traffic for the historic occasion. SHA was followed

SHA began a Twitter pilot for the Presidential Inauguration in January 2009.



by motorists as well as media and community organizations throughout the Washington DC metropolitan area to receive traffic updates. SHA messages were also "retweeted" by other Twitter users, further spreading the messages.

ADA Public Outreach and Compliance

SHA held ADA self-evaluation meetings throughout the state. A total of eight meetings from Western Maryland to the Eastern Shore were held over an eight month period. SHA also developed a customer satisfaction survey of SHA's major ADA stakeholders on how well SHA captures its customer priorities and expectations on SHA projects and services. SHA achieved a stakeholder satisfaction rating of three (satisfied) on a four-point scale.

Advisory Councils

SHA has the benefit of several advisory councils that provide executive level guidance for policies and programs related to ADA, environmental responsibility, and M/DBE. These councils include a partnering component. This has demonstrated good satisfaction among council members in their working relationship with SHA. Also, specific enhancements were identified. The SHA DBE Advisory Group identified methods to expand this concept to a broader array of MBE firms. The ADA Advisory Council identified ways to increase participation via e-mail and phone that allows members to participate without the challenge of arranging transportation. The additional efforts made to reach out to stakeholder groups has improved the quality of SHA's programs in these areas.

SHA launched its new website June 30, compliant with ADA requirements and statewide branding.



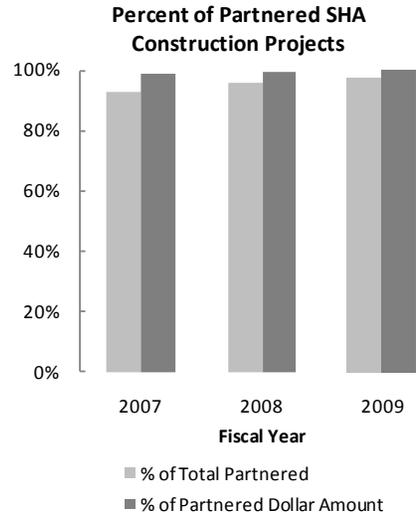
Customer Service Outreach

- As part of the highway centennial, SHA volunteers staffed booths at more than a dozen fairs and events to distribute maps (transportation, scenic byway and bicycle) and safety awareness materials. SHA volunteers interacted with hundreds of thousands of customers at the grass roots level and answered thousands of questions from the public. SHA's Choose Safety for Life (CSFL) campaign was highlighted throughout these events.
- SHA teamed with the Governor's StateStat office to deliver the One Maryland Recovery and Reinvestment website that showcases ARRA funded stimulus projects.
- SHA issued a new truckers handbook to motor carrier industry customers. In total, 15,000 copies were printed and have been sent to truck stops, rest houses, etc. The handbook includes a postcard with survey questions.

- SHA employees staffed a booth at the Maryland State Fair in Timonium, focusing on customer service and the centennial.
- SHA launched its new website June 30. The new website is well organized, customer friendly, compliant with ADA requirements and statewide branding.

Collaboration with Partners

SHA is a national leader in partnering on construction projects. SHA construction inspection teams and their contractor partners work together to deliver projects. SHA also meets on a regular basis with project delivery partners in engineering and construction; the ACEC/MD, the Maryland Highway Contractors Association, the Maryland Asphalt Association and concrete and aggregate materials suppliers. Early in 2009, formal partnering charters were initiated with these groups. As part of this effort, the groups assessed many of the aspects of their work together and identified areas to focus on improving. Surveys indicate that SHA’s working relationship with these groups is very good.



Community Programs

- SHA visited high schools as part of National Engineers Week.
- SHA staff partnered with Baltimore County government staging “The Parade of Gold,” honoring Maryland’s Olympians, Para-Olympians and Special Olympians on October 4.
- SHA maintenance shop personnel loaned hundreds of safety vests to parents of trick-or-treaters through our annual Vests for Visibility Program during Halloween.
- SHA held Red Cross blood drives at its Baltimore headquarters and district offices, meeting or exceeding donation goals. SHA ranks 489th among 7,209 local chapter group donors.

Collaboration with International Peers

- A 13 member delegation from the China Ministry of Transport General Station of Quality Supervision (GSQS) visited the United States and were given a presentation on the Maryland ICC Project. The GSQS was especially interested in the stewardship projects, as it is a very new concept in China.
- SHA hosted five delegations from several countries (Japan, India, and Eastern European countries) on behalf of FHWA, US Agency for International Development, US Department of Commerce, and the World Bank.
- SHA hosted a delegation of traffic safety specialists from the Eurasian nation of Azerbaijan.

SHA 2008 Centennial Celebration – National Award Winning Campaign

SHA launched the Maryland Highway Centennial campaign to raise awareness about the importance of highways to the State's economy and quality of life. This involved coordinating grassroots outreach at fairs as well as museum exhibits and events to showcase the agency's commitment to safety and customer service.

- "From Rocky Roads to Roads That Rock" exhibit opened at the Maryland Science Center on October 8, 2008. Maryland's Science Center partnered with SHA and the Centennial Committee to open an exhibit encouraging children's interest in engineering. The interactive exhibit ran from October 2008 through April 2009.
- Moving Maryland Forward documentary aired prime time on public television in November 2008 and in March 2009. Nearly 3 percent of the market watched, higher than Fox network, competing against NFL and CSI, with higher ratings than MPT's number one show, Masterpiece Theatre.
- SHA published "Moving Maryland Forward, A Century of Modern Road Building" book and held a book signing event at the Enoch Pratt Free Library Central Branch on December 19, 2008. Copies of the popular history book by Harold Counihan were supplied to all libraries and public high schools.

External Communications for Capital Programs and Operational Items

- Provided key participation in the MDOT Presidential Inaugural Team and handled national and local media calls. Piloted the use of Twitter with great success.
- Managed communications for several crisis incidents: MD 214/Redskins water main break; River Road water main break; I-70 drag racing fatal crash; US 29 cross-over crash; tropical storm Hannah; flooding of SHA HQ/water main break; MD 175 sink hole; activation of 12 Emergency Operations Centers for 24/7 winter coverage.
- Acquired \$25 million in Earned Media Value. Researched and wrote 269 press releases and 100+ elected official letters; managed 14 events/press conferences; researched 7,500 inquiries; produced daily media log and 6,500 news clippings; 375 after-hours media calls.
- ARRA communications included issuing 21 project releases from March 15 to June 30 and supporting President Obama's announcement of Maryland as the first state in the country to initiate ARRA projects.
- This first ARRA project, MD 650 resurfacing in Montgomery County, generated more than 65 media calls and dozens of TV interviews.

- SHA held its annual SNOW Show for media November 2008. Good attendance by reporters and great coverage, with an earned media value in excess of \$350,000.
- Managed community outreach and media for the \$2.56 billion ICC project, including the Governor's tour in April and numerous media events and public meetings.
- Special emphasis was placed on communicating Smart, Green and Growing Environmental Initiatives such as:
 - ◆ Anti-litter/Keep Maryland Beautiful,
 - ◆ 20th Anniversary of Adopt-A-Highway,
 - ◆ Messages recognizing Earth Month,
 - ◆ Placed "You Do It to the Bay. You Do It to Yourself." PSAs from March to June to curb littering,
 - ◆ Completed "SHA: Smart, Green & Growing" Internet video,
 - ◆ Promoted goats for mowing on Hampstead bypass, garnering international coverage,
 - ◆ Promoted SHA's ICC turtle project to relocate and monitor Eastern Box turtles,
 - ◆ Promoted SHA's Windmill, Ridesharing and Million Trees initiatives.
- SHA also continued its commitment to CSFL education and marketing. This included continuing to cultivate partnerships with both public and private agencies, including the Johns Hopkins Children's Hospital. The Be A Driving Force for Safety campaign for state employees was also implemented through an Executive Order from the Governor, issued in May 2009.

Community Involvement on SHA Projects

SHA continued to be proactive in discussing projects with citizens, community groups, elected officials and those who are potentially impacted by projects. Supporting two-way communication with our customers, SHA held more than 40 formal public meetings. Examples include:

- MD 589 (Racetrack Road) project located in Worcester County,
- I-70 from MD 32 (Patuxent Freeway) to US 29 (Columbia Pike) project located in Howard County,
- I-795 (Northwest Expressway) at Dolfield Boulevard/Pleasant Hill Road Interchange project in Baltimore County,
- MD 180 (Jefferson Pike) / MD 351 (Ballenger Creek Pike) Project Planning Study to improve the existing capacity and traffic operations while supporting existing planned development,

- I-270 (Eisenhower Memorial Highway) / US 15 (Catoctin Mountain Highway) Multi-Modal Corridor Study. The purpose of this study was to consider highway and transit improvements in this corridor,
- Bridge Replacement Project for I-695 (Baltimore Beltway) over MD 26 (Liberty Road),
- MD 28/MD 198 Informational Workshop,
- MD 5 Leonardtown Open House,
- MD 5 Corridor Informational Workshop.

District and headquarters employees also attended many more informal meetings at the invitation of community groups and elected officials.

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ANNUAL REPORT

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