

2. Summary of Task Force Meetings



Five Task Force meetings were held to present issues affecting traffic capacity across the Chesapeake Bay. The first three meetings were held in the Maryland Senate Building in Annapolis, and the two remaining meetings were held at the Tidewater Inn in Easton. The first four Task Force meetings were designed to focus on one or two distinct and related topics. Experts in transportation, planning, and economic development made presentations. Task Force members were given an opportunity to ask questions during and after the presentations. A summary of each meeting was prepared and distributed at the following meeting.

In addition, each member received a Briefing Book prior to the first meeting, which served as the record of the Task Force process. All handouts were stored in the book. Task Force members kept their Briefing Books between meetings.

A brief summary of the information presented at each meeting is presented on the following pages. Task Force Meeting #5, which is described later in this report, did not include any formal presentations; instead, the purpose of the final meeting was to promote discussion of the topics presented previously.

Summary of Task Force Meetings

Meeting # 1 – The Bay Bridge: Yesterday, Today, and Tomorrow

The purpose of Meeting #1 was to kick-off the Task Force process, allow members to meet each other and Authority staff, and to share detailed information about the history of the Bay Bridge and its local and regional significance.

MDOT Secretary Robert Flanagan began Meeting #1 by welcoming the Task Force members and describing the traffic congestion associated with the Bay Bridge and why it is critical to take action now. Secretary Flanagan explained that conditions are expected to worsen over the next twenty years and the best available data of future traffic projections may be underestimated. The project development process is complex and controversial so it could take many years until capacity issues at the existing bridge are resolved.

Maryland Transportation Authority Executive Secretary Trent Kittleman then presented a comprehensive history of the first and second spans of the Bay Bridge and the regional significance of the Bridge. Ms. Kittleman continued with a discussion of existing conditions and how the Authority is responding to increased traffic and delays.

To illustrate the significant growth in traffic, Ms. Kittleman presented existing and future projections of traffic data. For example, the annual traffic on the Bay Bridge in 1952 (when the first bridge was originally opened to traffic) was 1.1 million vehicles. In 2004, 25 million vehicles crossed the Bay Bridge. Ms. Kittleman also explained some of the reasons for traffic delays at the bridge. For example, the US 50 eastbound and westbound approaches to the Bridge, each three lanes wide, have a capacity of 6,000 vehicles per hour. However, the bridge spans can carry only 4,500 vehicles per hour.

Demand for capacity across the Bay is attributed to the location and types of employment centers on the Western Shore as compared to employment available on



the Eastern Shore. More than 11,000 people commute from Eastern Shore to Western Shore counties, Baltimore City and Washington, D.C each day. More than 2,000 people commute from Western Shore to Eastern Shore counties daily. Truck traffic constitutes 14 percent of the vehicles traveling on weekdays. The statewide average for truck traffic on this type of roadway (an urban arterial road) is four percent. The Bay Bridge carries 53 percent more traffic on summer weekend days (95,000 vehicles) than on weekdays (61,000 vehicles).

An origin-destination (O-D) survey was conducted in 2001 to determine travel patterns associated with the Bay Bridge. Surveys were conducted for the eastbound direction on a summer weekend day (Saturday in August) and for an "average" weekday (Wednesday in October) to capture seasonal variations in traffic crossing the Bridge. The O-D study showed most of the summer weekend traffic

Summary of Task Force Meetings

traveling from the Baltimore-Washington metropolitan area to the lower Eastern Shore. For weekday travel, the study showed the majority of eastbound traffic from the Baltimore region traveling to the lower Eastern Shore and Queen Anne's County. The complete results of this study are published in the "Origin-Destination Survey Report, Bay & Nice Bridge Study," June 5, 2002. The Origin-Destination Survey Report includes a detailed break down of specific origins and destinations.

A summary, showing Baltimore and Washington Origin-Destination Study Results is shown below in Table 1.

The Authority has developed several interim strategies to maximize bridge capacity and reduce congestion during the busiest times during the summer months called "Taking the Heat Out of Summer Travel." The program reduced peak-period traffic on the Bridge by seven percent in 2005. The program included widening toll-plaza departures, using the westbound contra-flow lane for *E-ZPass*SM customers, aggressive marketing of *E-ZPass*SM, extending the *E-ZPass*SM only lane from one half to one mile, adding more vehicle-recovery technicians, new overhead dynamic message signs,

using shoulders on MD 8 for local residents, "Go Early... Stay Late" program with the Department of Business and Economic Development (DBED), "State-of-the-Bridge" telephone message system, and enhanced public and media outreach.

In addition to these efforts to reduce travel during peak periods, the Authority uses contra-flow operations on the westbound span during peak periods. A contra-flow lane operates in a direction opposite to the normal flow of traffic. The westbound span generally carries three lanes of traffic from Kent Island to the Western Shore. When necessary, one westbound span lane is converted to an eastbound lane to increase eastbound capacity to three lanes. The Authority continues to develop innovative solutions to improve traffic flow and also works with local municipalities, communities, and other State agencies to ease traffic conditions and create optimal flow during peak periods. However, even with these measures, the capacity of the bridge will not meet the future demand.

Meeting #1 concluded with a presentation of a "zone" approach that was used throughout the remaining Task Force meetings. Four zones were outlined on a map of Maryland as equally sized geographic areas so that information could be

Table 1: Origin-Destination Study Results

	Summer Weekend Day	Non-Summer Weekday
Origin: Baltimore	50%	70%
Origin: Washington, DC	50%	30%
Destination: Lower Eastern Shore	70%	40%
Destination: Upper Eastern Shore	30%	60%
Most Common Trip Type	Tourist / Recreation	Commuter

presented in an organized way (Figure 3). The zones in no way represented preferred locations for a crossing; they were merely convenient ways of presenting information.

Two areas of the Bay were not included in any of the zones. Based on the initial sketch level travel forecasting model, a crossing between Harford and Cecil Counties would divert a very small amount of the existing Bay Bridge traffic and would be too close to existing regional routes (I-95, US 40). Likewise, a crossing between St. Mary's and Somerset Counties also would divert only a small amount of the traffic that would normally use the existing Bay Bridge. This crossing would require construction in the deepest part of the bay with extremely long spans between support piles and would exceed 25 miles in length. These areas are shown in Figures 1 and 2.

Meeting #2 - Traffic and Infrastructure

The purpose of Meeting #2 was to educate the Task Force members about the planning, design, and construction of bridges and approach roadways. The Task Force was introduced to the concept of mega projects, such as the Intercounty Connector and the Woodrow Wilson Bridge, to understand the process and schedule for implementing complex, high profile, costly, and often controversial projects. Dennis Simpson, the Authority's Deputy Director of Capital Planning, presented this portion of the presentation and gave a brief overview of the successful project development process used in Maryland.

Geoffrey Kolberg, the Authority's Executive Director of Engineering and Construction Management, presented information on major water crossings. He first described the characteristics of the Bay to illustrate the wide range of constraints associated with each zone. For example, the width of the Chesapeake Bay ranges from four miles at the existing crossing to 25 miles at its mouth in Virginia. Its water depth ranges from 10 feet in the north to over 100 feet in the south. Poor soil conditions may exist in the submerged Susquehanna River Channel, the ancient riverbed of this waterway, possibly requiring substantial deep foundations to support a new crossing.

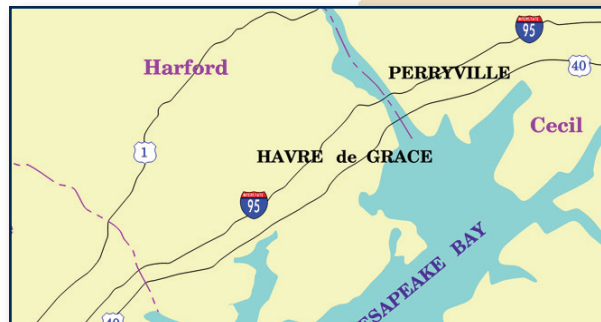


Figure 1: Northern Chesapeake Bay

A crossing between Harford and Cecil Counties would divert a very small amount of the existing Bay Bridge traffic and would be too close to I-95 and US 40.



Figure 2: Southern Chesapeake Bay

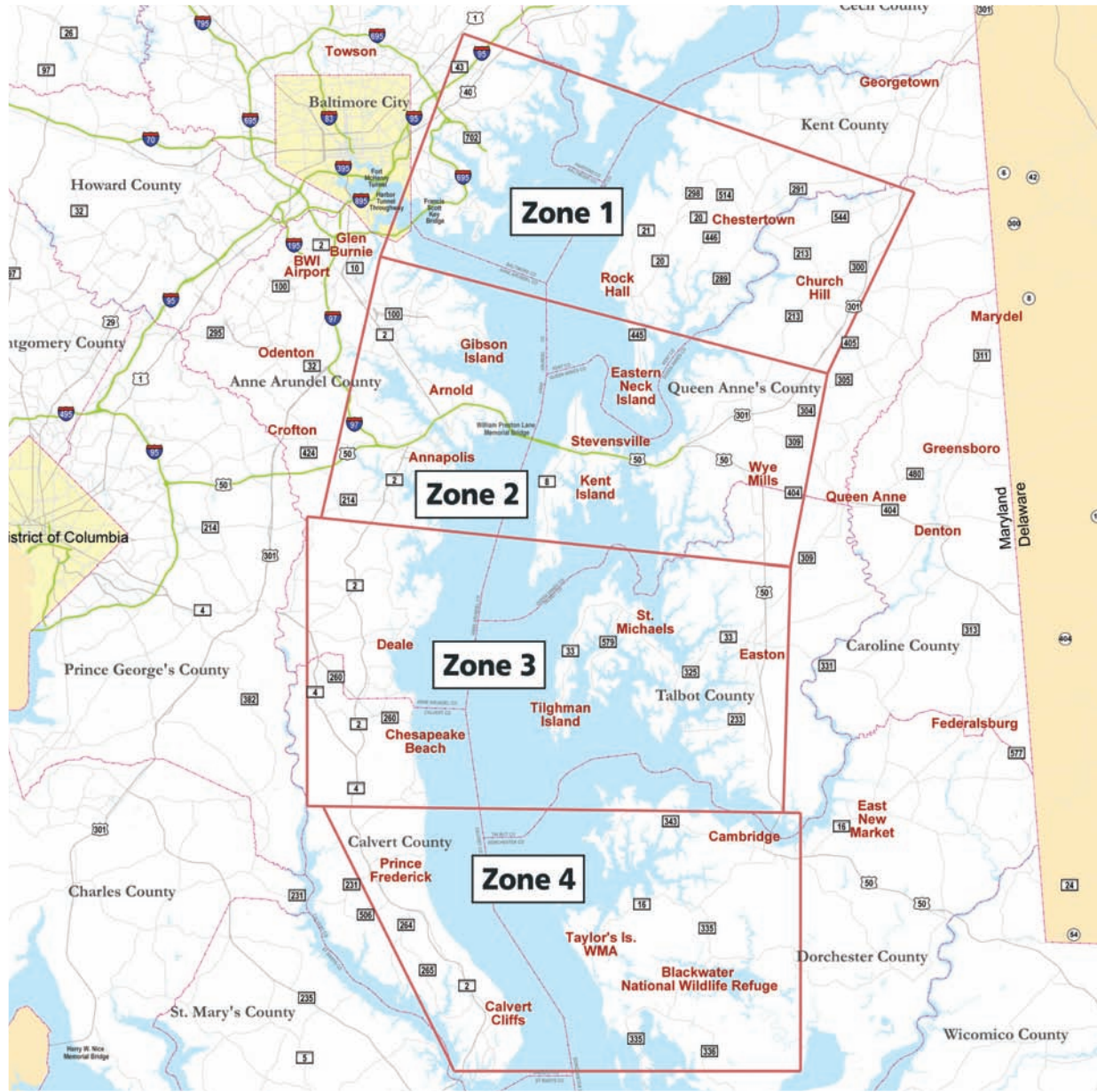
A crossing between St. Mary's and Somerset Counties would require construction in the deepest part of the bay with long spans between support piles.

Given the physical characteristics of the Chesapeake Bay, three types of crossings are possible; bridge, tunnel and ferry service. In terms of adding capacity to the exiting Bridge, the Authority has evaluated the possibility of widening the existing Bay Bridge. However, the existing parallel bridge structures were not designed to carry the additional weight of new substructure and superstructure nor the additional traffic. In effect, widening the existing bridge would require construction of new substructure and superstructure that would be equivalent to constructing a new bridge of similar width.

Using current engineering technology, a new crossing could be constructed in any of the four zones. However, assuming a bridge crossing for

Summary of Task Force Meetings

Figure 3: Zone Map



The four zones presented to the Task Force are listed below and are shown in Figure 3.

Zone 1: Baltimore County to Kent County (historic northern crossing)

Zone 2: Anne Arundel County to Queen Anne's County (existing Bay Bridge)

Zone 3: Anne Arundel/Calvert Counties to Talbot County (near St. Michaels)

Zone 4: Calvert County to Dorchester County (historic southern crossing)

the purposes of analysis, the costs for a bridge in Zone 1 would likely be less than one in Zones 2, 3, or 4, as crossings in these zones would have longer main span lengths to accommodate poor soils and navigation activities, deeper foundations necessary for construction within the navigational channel, and total bridge lengths. A long-span bridge project could cost between \$600 and \$900 million per mile (2005 dollars).

The following features were presented for each zone:

- Crossing length
- Main span length or navigational channel width
- Water depth and foundation requirements
- Structure type and pier height
- Vertical clearance for vessel passage
- Other issues such as security, maintenance costs, economic interests

Other factors were discussed for crossings in general and included homeland security, maintenance, and economic considerations for the Port of Baltimore. Navigation issues would require coordination with the United States Coast Guard. Bridge height would require coordination with the Federal Aviation Administration and the Department of Defense. A bridge would need a pier protection

system to protect the bridge substructure from collisions, although less substantial vessel collision/pier protection systems would be required north of the Port of Baltimore (larger vessels cannot pass under the existing Bay Bridge or Key Bridge). More protection would be necessary within the unconstrained navigational channel south of the existing bridge for large marine vessels serving the Port of Baltimore, sailing at ocean-going speeds. Table 2 summarizes the Chesapeake Bay characteristics and potential structure types.

A tunnel is typically used in areas where navigation restricts the placement of bridge supports. In the case of the Chesapeake Bay, where such constraints do not exist, a tunnel could be constructed in combination with bridge structures, like Virginia’s Chesapeake Bay Bridge Tunnel and the Hampton Roads Bridge Tunnel. A tunnel would require construction of access and ventilation islands above the tunnel and are more susceptible to hazardous material spills and threats to homeland security. A tunnel can cost up to three times the cost of a bridge at the same location.

Based on earlier studies conducted by MDOT, ferry service would provide some capacity, especially for recreational travel, but would

Table 2: Summary of Long Span Bridge Considerations

	Existing Bridges	Zone 1	Zone 2	Zone 3	Zone 4
Crossing Length	4 miles	7-9 miles	4 miles	10-12miles	6-7 miles
Channel Width	1,500 ft	600 ft	1,500 ft	>10,000 ft	>10,000 ft
Main Span Length	1,600 ft	1,200 ft	2,000 ft	3,000-4,000 ft	3,000-4,000 ft
Water Depth	60 ft	35 ft	60 ft	110 ft	110 ft

Summary of Task Force Meetings

have significantly longer crossing times, from 55 minutes to 145 minutes. User costs could range from \$25 to \$40 for cars and \$75 to \$110 for trucks. Capacity would depend on the number of ferries used. Based on these studies, ferry service would provide capacity for 25,000 to 335,000 vehicles per year (compared to 25 million on the existing bridge). Regardless of location within the study area, a ferry service would not relieve congestion on the existing bridge.

Neil Pedersen, Administrator for the Maryland State Highway Administration, followed with a presentation on the issues associated with planning and designing the approach roadway system in each zone. If a crossing were selected in any of the zones, the adjacent roadways must be sufficient to carry the traffic to and from the crossing. A significant number of miles of roadways could be affected by new capacity across the Bay, many of which are currently or are expected to be over capacity in the future. Communities and environmental resources existing along roadways adjacent to the Bay could be affected.

A sketch-level travel demand model was developed as part of the Transportation Needs Report. This model computed order of magnitude comparisons between the zones (this type of model is not detailed enough for the analysis and design of an actual crossing). Based on the results of the model, traffic across the bridge will continue to increase to a level where weekday congestion will resemble the congestion that exists now on summer weekends. The capacity of the existing bridge is 82,500 vehicles per day. **The volumes forecasted for 2025 are 135,000 vehicles per day, which is 60 percent higher than the capacity of the existing bridge and approach roadways.** When evaluating each zone, certain factors cause the need for additional infrastructure. The types of roadways at a crossing location and the existing travel demand on those roadways may necessitate infrastructure improvements. Existing controls of access and traffic operations, upgrades or new roadways, interchange and access locations and tie-ins with existing major corridors also affect the need for additional infrastructure.



For each roadway segment, the sketch-level model measured Average Daily Traffic (ADT), or the total number of vehicles using the roadway in a 24-hour period. The model assigns a Level of Service (LOS), or a quantitative measure of traffic operational conditions which is used to compare the effects of a no-build and build alternative on roadways adjacent to each possible crossing. Ranges of operation are defined for each type of roadway section (signalized intersections, freeways, ramp junctions and weaving sections) and are related to the amount of traffic demand at a given time as compared to the capacity of that type of roadway section.

Six LOS are defined for each type of roadway section and are given letter designations from "A" to "F," with "A" representing good operating conditions and "F" representing

unsatisfactory operating conditions. For each zone, Mr. Pedersen presented the LOS of major feeder roads under existing conditions (2003) and future (2025) conditions with and without a new crossing and again reminded the Task Force members of the preliminary nature of the forecasts. A sketch level model is not detailed enough to be used in a formal NEPA study, but it can be used to give a general order of magnitude estimate of traffic projections. These types of projections are useful in understanding trends of potential diversion of traffic, but are very preliminary in nature. Therefore, the traffic numbers presented to the Task Force represent a preliminary estimate of projected trends. A summary of the estimated traffic volumes that would use a new crossing in Zones 1, 3 or 4 are presented in Table 3 below.

Table 3: Summary of Projected Traffic Diversions by Zone

	Zone 1	Zone 2	Zone 3	Zone 4
Average Summer Weekend:				
2025 ADT Diverted to this Zone	40,000	N/A	50,000	25,000
2025 ADT Remaining on Existing Bridge	95,000	135,000	85,000	110,000
Average Weekday:				
2025 ADT Diverted to this Zone	25,000	N/A	25,000	15,000
2025 ADT Remaining on Existing Bridge	61,000	85,000	60,000	70,000

Summary of Task Force Meetings

Zone 1 – For summer traffic, a crossing in Zone 1 could divert approximately 40,000 (ADT) from the existing crossing, but the existing crossing may still carry approximately 95,000 (ADT), which exceeds its capacity. For weekday traffic, a crossing in Zone 1 would divert 25,000 from the existing crossing, leaving roughly 61,000 ADT on the existing crossing. The US 50 area outside Annapolis, on the Western Shore, would remain severely congested. The greatest effect on traffic volumes would likely be from land use changes in Kent County. Based on these sketch level traffic projections, a crossing in Zone 1 could require major upgrades to MD 702, MD 43, North Point Road, the approaches along I-695 (Baltimore Beltway), and a new road or upgrades to existing roads from Tolchester to US 301 (approximately 18-20 miles).

Zone 2 – For Zone 2, the location of the existing Bay Bridge, more lanes would be needed adjacent to the bridge to meet the capacity of the approach roads. Increased capacity would also be necessary on US 50 approaching Annapolis. Widening the US 50 approach through Annapolis would likely exacerbate capacity issues on I-97. On the Eastern Shore, an upgrade of US 50 from the US 301 split to MD 404 would be necessary. The roadway segment of US 50 between the Bridge to US 301 would reach capacity around 2030.

Zone 3 – For summer traffic, a crossing in Zone 3 potentially could divert approximately 50,000 (ADT) from the existing crossing and the existing crossing could still carry approximately 85,000 (ADT), which slightly exceeds its capacity. For weekday traffic, a crossing in Zone 3 could divert approximately 25,000 from the existing crossing with roughly 61,000 ADT still using the existing crossing. The US 50 area outside Annapolis, on the Western Shore, would remain severely congested. A crossing in Zone 3 could necessitate widening of MD 4 to eight lanes from I-495 to MD 260 (14 miles). A major upgrade to MD 260 or a new roadway (8.5 miles) also could be needed. In Talbot County, a new limited access freeway could be needed from Knapps Narrows, over sensitive areas, to tie into US 50 near Easton (18 miles). This new

roadway would require a significant number of bridges across rivers and wetland systems.

Zone 4 – For summer traffic, a crossing in Zone 4 could divert approximately 25,000 (ADT) from the existing crossing, leaving the existing crossing to still carry about 110,000 (ADT), which exceeds its capacity. On a non-summer weekday, a crossing in Zone 4 could divert approximately 15,000 (ADT) from the existing crossing, leaving roughly 71,000 ADT on the existing crossing. For both types of traffic, major capacity issues would remain on the existing bridge. US 50 outside Annapolis would remain severely congested. In addition, in Calvert County, MD 4 would need to be upgraded with one to two additional lanes in each direction with greater controls of access from I-495 to Prince Frederick (32 miles). An access controlled freeway could be needed around Prince Frederick. In Dorchester County, an upgrade to MD 16 or construction of a new roadway may be necessary. This upgrade or new construction would impact small communities and roughly 20 miles of sensitive environmental areas (along and near MD 16). Because 85 percent of Dorchester County is covered by wetlands, the length of roadway bridges could be greater than the Bay crossing itself.

Roadway costs, depending upon the location of the project, could approach \$100 million per mile in urban areas and \$30-50 million in rural areas (2005 dollars). Crossing wetlands would incur greater costs. The majority of the comments offered by the Task Force at the end of Meeting #2 were related to the costs and impacts of constructing a new crossing and its approach roadways.

Meeting # 3 – The Environmental Review and Regulatory Process

The purpose of this meeting was to introduce the National Environmental Policy Act of 1969 (NEPA) and associated laws and processes, which govern

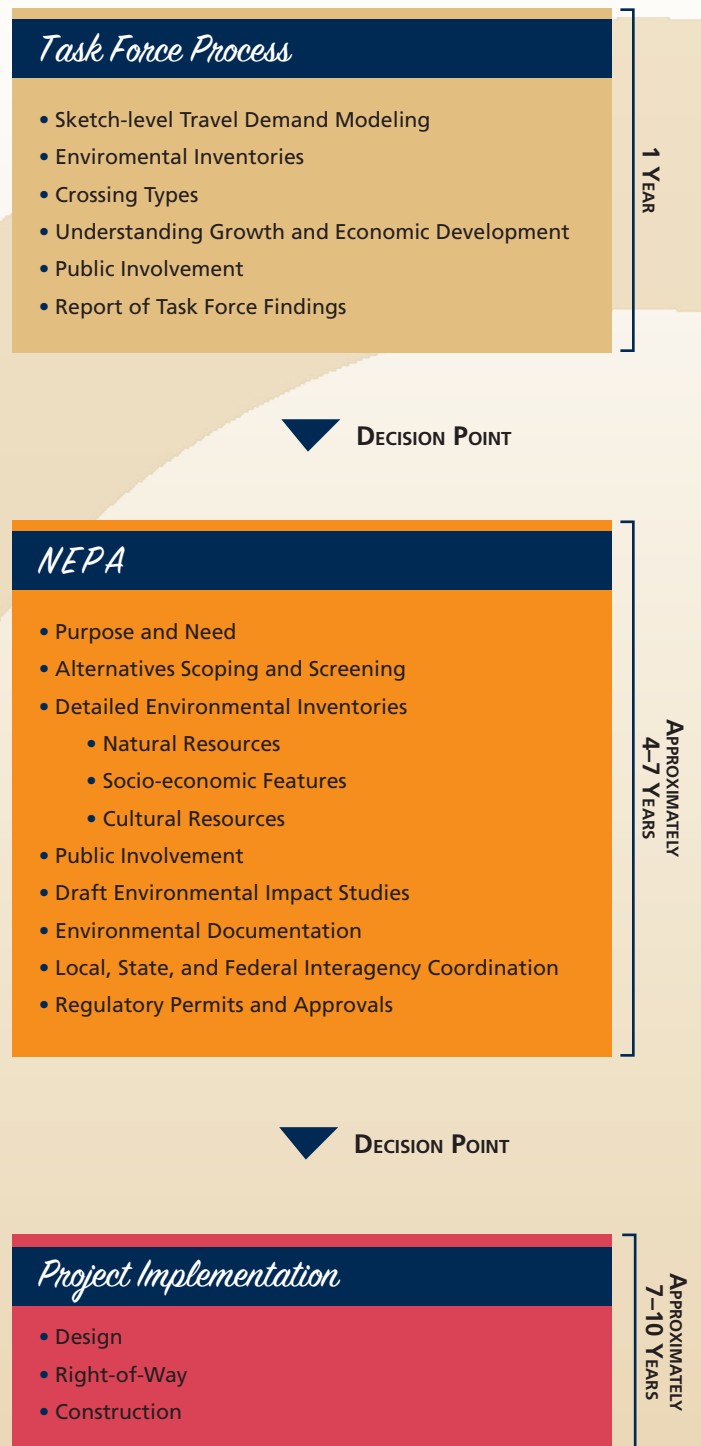
the environmental review of all federally funded transportation projects. In addition, staff from Maryland environmental agencies presented an overview of the regulatory process and the environmental resources within each zone which may be protected by state and federal regulations.

Alan Straus, the project manager for the consultant team, reviewed the fundamental tenets of NEPA, which comprise the environmental review process. The environmental review process is guided by both procedural and substantive statutes, regulations, and guidance. This process includes more than two dozen federal and state laws, each focused on protection of human, cultural and natural environmental resources.

NEPA is a consensus building process (as shown in figure 4) where input from all stakeholders is used to develop a project that responds to transportation needs and includes a thorough evaluation of all environmental impacts and reasonable alternatives. At specific points in the process, regulatory agencies must concur that NEPA requirements have been met. In addition, public involvement is an important requirement of NEPA studies. Each major step of NEPA has an opportunity for public interaction and comment. The Task Force process is not part of NEPA, but results from the Task Force would be considered in any future NEPA process.

The NEPA process includes three stages: project scoping, detailed studies, and decision-making. During project scoping, the Purpose and Need statement, which justifies and defines the reason for the project, is developed. The project study area is also defined and inventories of the natural, human, and cultural environments are collected. During this time, travel demand studies are conducted for the existing and future no-build conditions. Also, the lead federal and state agencies will solicit input from the public on the Purpose and Need statement and on potential solutions. Throughout the process, no-build is always an option and is also used to compare the benefits and impacts of alternative solutions.

Figure 4: NEPA Consensus Building Process



Summary of Task Force Meetings

Once alternatives are defined that could meet the Purpose and Need, detailed studies of engineering, traffic, and the environment (natural and human) are conducted to evaluate the benefits, impacts, and costs of the alternatives. Environmental studies include wetlands, waterways and floodplains, sensitive species and habitats, forests and parklands, historic and archaeological resources, neighborhoods, and community features. The detailed studies also evaluate land use, growth and development, travel demand and capacity, and air and noise impacts. The results of these studies are presented to the public and agencies in a draft environmental document. For large complex projects, this document is called a Draft Environmental Impact Statement (DEIS). During this stage, the public has an opportunity to review and comment on the document, both at a Location/Design Public Hearing and in writing during the comment period.

During the decision-making stage, the lead agencies review all comments on the DEIS, perform additional studies and refine alternatives, and recommend a Preferred Alternative. The Final Environmental Impact Statement (FEIS) documents the support for the Preferred Alternative and how public comments were considered. The public then has an opportunity to comment on the FEIS. Once FEIS comments are reviewed and considered by the lead agencies, a Record of Decision (ROD) is issued by the lead federal agency. If a build alternative is selected, the preliminary design components of the preferred action, as documented in the FEIS, are used to obtain the permits and regulatory approvals necessary to construct a project.

It is critical that public stakeholders are involved during every stage of NEPA. Through its history of planning and implementing projects, Maryland has developed a good record of protecting the environment and addressing communities' concerns.

The laws that guide the NEPA process are administered by 17 federal and 12 state agencies. As a national leader, Maryland uses a process that combines the environmental

review process with the regulatory process in an effort to streamline the two processes and make them more efficient. These laws include:

Federal Laws:

- National Environmental Policy Act
- Section 401, 402 and 404 of the Clean Water Act
- Section 9 of Rivers and Harbors Act
- Section 10 of Rivers and Harbors Act
- Section 4(f) of the U.S. Department of Transportation Act
- Section 106 of the Historic Preservation Act
- Section 6(f) of the Land and Water Conservation Act
- Section 307 of the Coastal Zone Management Act
- Section 7 of the Endangered Species Act
- Fish and Wildlife Coordination Act
- Migratory Bird Treaty Act
- National Wildlife Refuge System Improvement Act
- Wild and Scenic Rivers Act
- Marine Protection, Research and Sanctuaries Act
- Clean Air Act
- Resource Conservation and Recovery Act
- General Bridge Act

State Laws

- Environment Article
- Waterway Construction and Dam Safety Act
- Nontidal Wetlands Protection Act
- Tidal Wetlands Act
- Sediment Control Act
- Stormwater Management Act
- Ambient Air Quality Control Act
- Natural Resources Article
- Maryland Environmental Policy Act
- Chesapeake and Atlantic Coastal Bays
- Critical Area Protection Act
- Non-game and Endangered Species Act
- Forest Conservation Act
- Scenic and Wild Rivers Act
- Housing and Community Development Article
- Maryland Historical Preservation Act

Gary Setzer, Director of Wetlands and Waterways for the Maryland Department of the Environment, presented additional detail about Maryland's regulatory process and highlighted some of the federal approvals typically needed for transportation projects. In addition, Ren Serey, Executive Director, Critical Area Commission, Chesapeake and Atlantic Coastal Bays Critical Area Commission, highlighted regulations that protect forest buffers and lands adjacent to the Bay, such as the Forest Conservation Act and the Chesapeake and Atlantic Coastal Bays Critical Area Act.

Kenneth Miller, Director of Watershed Information Services for the Maryland Department of Natural Resources, presented resources and potential environmental issues for those resources in each zone. All four zones contain significant natural, human, and cultural resources that would be considered in any future studies. However, while each zone has a unique set of features, there are similar conditions between zones. Each project would have impacts that extend beyond zone boundaries known as secondary and cumulative impacts. Secondary and cumulative impacts can result from the growth pressures that occur when new capacity is made available and may be greater than the direct, or local, impacts.

A summary of the major features in each zone:

Zone 1 – Zone 1 contains an abundance of agricultural easements and rural legacy areas, some sensitive resource areas (habitats where threatened and endangered species exist), wetland, floodplains and sea grasses (submerged aquatic vegetation) as well as parklands, communities and neighborhoods. The proximity of a federal facility, Aberdeen Proving Grounds, to this zone would also be a consideration. Other features of interest in Zone 1 include Carroll Island; Gunpowder Falls; North Point; Hart-Miller / Pleasure Island; Rocky Point State Park; Martin State Airport; numerous communities, including Essex, Dundalk, Middle River, Chase, Chestertown, Rock Hall, and Church Hill; Patapsco, Back, and Middle Rivers; Chester River and its creeks and

tributaries; and Chestertown and Quaker Neck Landing historic districts.

Zone 2 – Within Zone 2, communities and neighborhoods, wetlands, sea grasses and floodplains, parklands, sensitive resource areas, historic resources and protected lands (agricultural easements) exist. Much of the unique resource features are found on the Eastern Shore. Some of the specific resources include Sandy Point State Park; the U.S. Naval Academy, the Severn, Magothy, and South Rivers and their creeks and tributaries; historic areas, including Annapolis, Stevensville, and Centreville; Stevensville, Kent Island, Centreville and other communities; Eastern Neck Island National Wildlife Refuge; Wildfowl Trust of North America – Chesapeake Bay Environmental Center; and the Chester and Wye Rivers and their creeks and tributaries.

Zone 3 – Zone 3 contains historic resources; Sensitive Resource Areas; protected lands, especially in south Anne Arundel County; wetlands; floodplains and sea grasses, especially on the Eastern Shore peninsulas south of St. Michaels; and communities, neighborhoods, and tourist locations, such as Deale, North Beach and Chesapeake Beach. In addition, the communities of St. Michaels (historic district), Tilghman Island, and Easton (historic district), as well as the historic areas north of Chesapeake Beach are located in Zone 3. Other features include the Miles, Avon and Choptank Rivers and their creeks and tributaries; and the Harris and Broad Creeks and inlets.

Zone 4 – Zone 4 contains extensive wetland systems, including those designated as Wetlands of Special State Concern. Much of the sensitive environment is part of the Blackwater National Wildlife Refuge, which makes up a large portion of Dorchester County. Zone 4 also contains floodplains and sea grasses, sensitive resource areas, parklands, communities and neighborhoods and agricultural easements. Major features of Zone 4 include Calvert Cliffs Nuclear Power Plant and Dominion Cove Point Liquid Natural Gas terminal; Calvert Cliffs and Greenwell State Parks; the communities in and around Cambridge (including historic along MD 16), Prince Frederick, and Chesapeake Beach;

Summary of Task Force Meetings

the Patuxent River and its creeks and tributaries; Taylors Island Wildlife Management Area; historic areas around Prince Frederick and west of Calvert Cliffs; and the Little Choptank and Hoga Rivers and their creeks and tributaries.

These presentations generated a lively discussion of how alternatives would be developed and how zones may be selected for further study as part of the NEPA process. Many comments focused on the consideration of other modes of travel, such as transit, instead of a new highway bridge. In addition, the Task Force inquired about Article 25 of the Maryland Code, County Commissioners / Miscellaneous Provisions / § 236, Construction of Toll Facilities. This Maryland law states that (a) A State agency, including the Maryland Transportation Authority, may not construct any toll road, toll highway, or toll bridge in the counties enumerated in this section without the express consent of a majority of the governments of the affected counties. (b) This section applies to Caroline County, Cecil County, Dorchester County, Kent County, Queen Anne's County, Somerset County, Talbot County, Wicomico County, and Worcester County. A copy of this law, which would also be considered at the appropriate time in the future, was provided to the Task Force.

Meeting # 4 - Growth and Economic Development

The purpose of this meeting was to provide information about growth and economic development in the Western and Eastern Shore counties and how these activities relate to each other and to the need for capacity across the Bay. Jim Noonan, Director of Infrastructure Planning for the Maryland Department of Planning (MDP), first explained the relationship between MDP's charge and the local and county comprehensive planning processes. MDP is the state agency responsible for coordinating statewide planning initiatives, including the visions and goals of the 1992 Planning Act,

the Smart Growth goals and the most recent Priority Places initiative. While the State provides overall guidance for growth policies, it is the local governments that determine appropriate land use and zoning. Every comprehensive plan prepared by municipal and county jurisdictions in Maryland must include these eight visions:

1. Development is concentrated in suitable areas
2. Sensitive areas are protected
3. In rural areas, growth is directed to existing population centers and resource areas are protected
4. Stewardship of the Chesapeake Bay and land is a universal ethic
5. Conservation of resources is practiced
6. Economic growth is encouraged and regulatory mechanisms are addressed to achieve these visions
7. Adequate public facilities and infrastructure are available or planned in areas where growth is to occur (2000 Session)
8. Funding mechanisms are addressed to achieve these visions

Building upon its eight visions, Maryland implemented two additional pieces of legislation to promote growth and development in the most suitable areas. Smart Growth legislation from 1997 identifies Priority Funding Areas (PFA) and channels public investment to these areas. This concentrates growth where infrastructure, such as water and sewer lines, schools and adequate roadways, already exists and protects natural environmental resource areas at the same time.

Counties and municipalities plan future land uses by designating specific zoning to regulate the density and type of development in specific areas. The interdependent relationship between land use and transportation

infrastructure makes the timing of infrastructure improvements critical –ideally, county requirements, such as Adequate Public Facility Ordinances, where developers pay for local transportation improvements necessary to accommodate new development, control the pace of development so that the demand for infrastructure does not outpace the availability of local and State funding. The State Consolidated Transportation Program and local Capital Improvement Programs dictate the pace of infrastructure investments that support development. While local governments are responsible for providing the infrastructure to support what is in the comprehensive plan,

the State spends its infrastructure investments on what local governments designate as their highest priorities.

While Maryland’s birth and death rates balance out (no net population gain), immigration and migration from other states and nations is strong. Maryland’s economy remains vibrant, with ample job opportunities, even when the national economy grows at a slower pace. Housing affordability, good schools, quality of life amenities, and proximity to cultural centers make Maryland attractive to new businesses and new residents. The demand for second homes and retirement homes drives the housing market

Transportation Influences Land Use



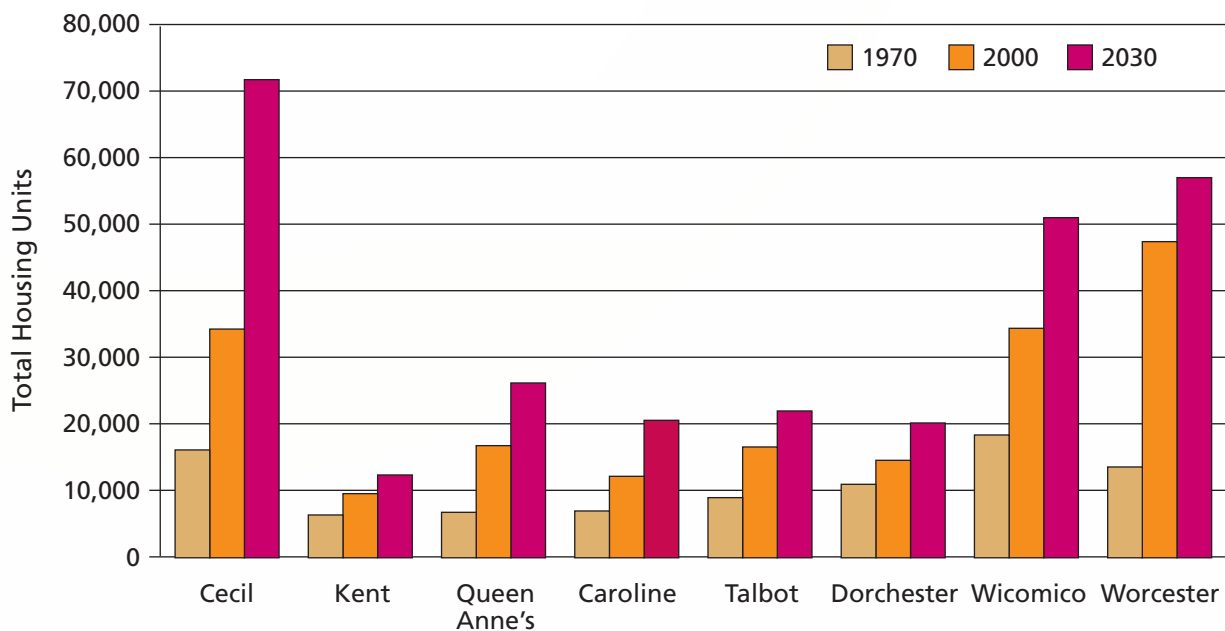
Land Use Influences Transportation

Summary of Task Force Meetings

on the Eastern Shore. The strong demand for housing is tempered by constraints such as the availability of water and sewer service, limits on nutrient inputs to streams and watersheds (federal regulation, NPDES), surface water and ground water supplies, adequate school facilities,

and necessary community services. In general, residential growth in the Western Shore counties has not influenced the traffic on the Bay Bridge as much as growth in Eastern Shore counties. The household growth trends for Maryland counties are shown in Figure 5.

Figure 5: Household Growth Trends—1970-2030

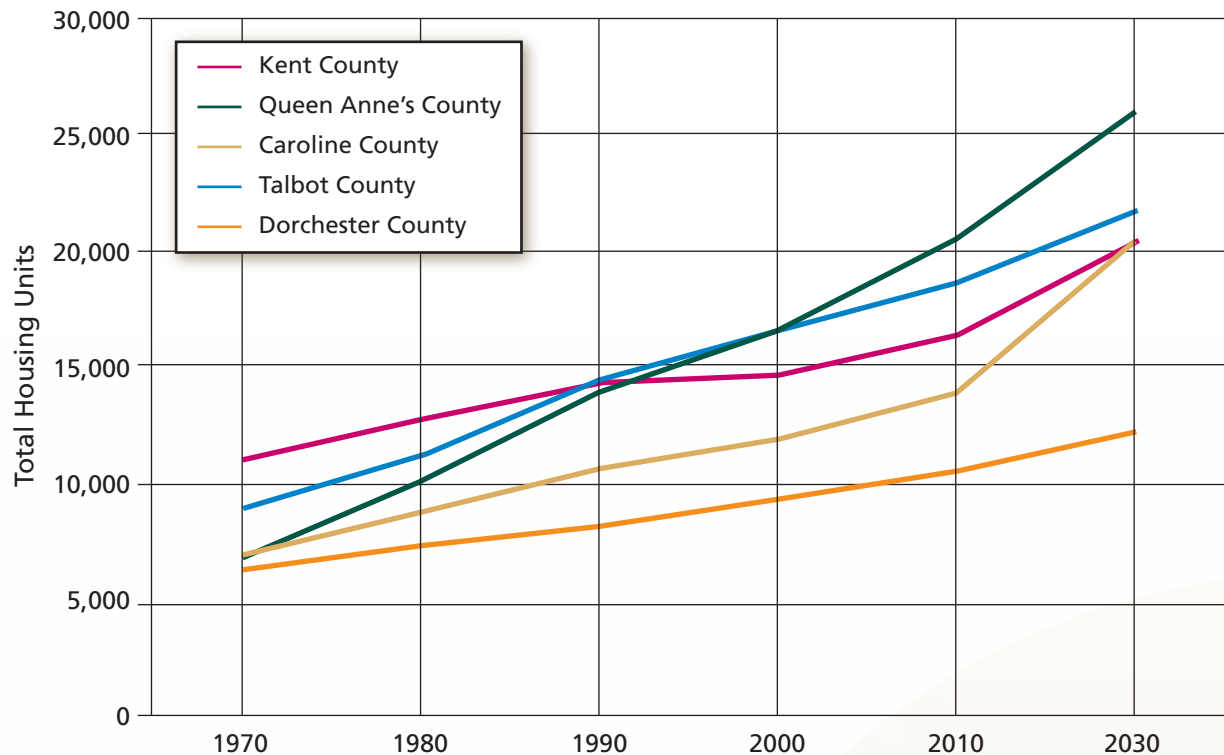


In the Baltimore and Washington regions, the rate of growth, which has traditionally increased, will decline over the next 30 years. In the past 30 years, the fastest growth has occurred in Southern Maryland and this rapid growth will continue over the next thirty years. Figure 6 shows the change in growth between 1970 and 2000 and projected growth for 2030 in the Eastern Shore Counties.

Over the next 30 years, a growth spike is expected to occur on the Eastern Shore due to the availability of affordable real estate. For example, 18,500 housing units were added to Eastern Shore counties between 1970 and 2000. Over the next 30 years, however, 27,000 units will be added, an increase of 150 percent over the preceding time period.

Unlike other Eastern Shore counties, Kent County anticipates even growth over the next 30 years. The County expects that 2,900 units will be added within this time frame, an increase of 31 percent (the County has infrastructure to support creation of 5,000 units). Much of the residential growth will be second homes and retirement housing, and will be concentrated near existing population centers and along the shorelines. Some of the demand for housing comes from Delaware employment centers. Housing on the Eastern Shore is affordable when compared to other parts of the region. Availability of housing in Kent County does contribute to commuting patterns across the Bay Bridge.

Figure 6: Residential Growth Trends–Eastern Shore



Queen Anne's County anticipates significant growth during the next thirty years. New development in the County is largely driven by the easy commute to the Western Shore. Additional demand comes from Dover area commuters and from second and retirement homeowners. The County expects that 9,500 units will be added by 2030, an increase of 56 percent. Because the current Comprehensive Plan for Queen Anne's County only plans for the creation of 6,700 units (based on infrastructure capacity and available land in designated growth areas), the shortfall will create pressure to annex lands adjacent to existing population centers. Queenstown and Centreville have proposals for annexations.

Caroline County anticipates significant growth during the next thirty years. Though Caroline County is farther from the Bay Bridge, it shows growth trends similar to Queen Anne's and Talbot Counties. Affordable housing, as

compared to the Western Shore, drives existing and future demand for housing in Caroline County. Some demand stems from retirement and second home purchases. The County expects that 8,500 units will be needed by 2030, an increase of 71 percent. Because the current comprehensive plans show a capacity for only 3,600 units (based on infrastructure capacity and available land in designated growth areas), the shortfall will create pressure to annex lands adjacent to existing population centers. The city of Denton is considering annexations. A new sewer system is being planned in Goldsboro to support anticipated growth.

Talbot County anticipates even growth during the next thirty years. Planned growth areas in Easton and Trappe provide affordable housing for the growing work force. Much of this work force commutes to the Western Shore. The County expects that 5,000 units will be needed by 2030, an increase of 30 percent.

Summary of Task Force Meetings

Municipal growth management tools created a capacity for 12,600 additional housing units. However, this growth may put stress on other infrastructure, particularly transportation. Growth outside municipalities is driven by the markets for retirement and second homes.

Dorchester County anticipates even growth during the next thirty years. Dorchester County is perceived as an ideal location because it is only an hour's drive from the Baltimore-Washington Airport, employment centers and the cultural amenities of the Baltimore-Washington area. Much of the housing demand stems from its proximity to these areas. The relative affordability of housing, as compared to the Western Shore, makes Dorchester County attractive to commuters. The County expects that 6,000 units will be needed by 2030, an increase of 30 percent. The current Comprehensive Plan shows a capacity for 26,100 units. Water and sewer infrastructure is not yet in place to accommodate planned growth. The demand for housing in the remainder of the County is primarily driven by the retirement and the second home market and real estate investment.

In summary, the demographics presented to the Task Force were based on what is contained in local land use plans drafted by the Eastern Shore counties. The timing and need for transportation infrastructure is dependent upon local land use policies. The abundance of affordable housing opportunities on the Eastern Shore is a significant contributor to commuter traffic on the Bay Bridge. The number of households in many Eastern Shore counties is projected to increase faster than historical growth rates. State officials responsible for the highway system that serves these areas, are concerned about the amount of infrastructure necessary to support projected growth during the next thirty years, even without additional capacity across the Bay. The demand for jobs and scarcity of housing in Delaware also will have an impact on nearby Maryland counties. New job growth on the Eastern Shore could provide a balancing effect but, if the next 10 years mirror the last, the majority of growth will be commuter related.

This growth will put additional pressure on existing highway infrastructure including the Bay Bridge. Local land use plans and decisions influence the need for transportation facilities that serve the region, such as the Bay Bridge. Current comprehensive plans were designed in the context of the existing roadway infrastructure and do not consider the possibility of additional capacity across the Chesapeake Bay. At this time, none of the local planning documents identify a need or desire for additional capacity.

At the conclusion of Mr. Noonan's presentation on growth, Task Force members commented on the need to reassess growth projections if municipal annexations become a common or frequent response to growth pressures. Annexation would allow much higher densities and could invalidate the current housing projections significantly.

Next, Jim Rzepkowski, Assistant Secretary for the Maryland Department of Business and Economic Development, presented information on economic development in Maryland and specifically on the Eastern Shore. He discussed current economic trends (i.e., median income, unemployment rates, etc.), the relationship between economic development and transportation infrastructure, and the constraints and possibilities for economic development on the Eastern Shore. Maryland's economy is one of the strongest in the country. Maryland has the second highest median household income in the nation at \$57,588. In 2004, Maryland's unemployment rate was 4.2 percent (10th lowest in the country). Maryland's economic strength stems in part from its location along the I-95 Corridor. Many federal facilities and military installations, private and public research centers, such as the National Institutes of Health, Johns Hopkins and the University of Maryland, are in close proximity to BWI Airport and the Port of Baltimore. Maryland also has a thriving biotech corridor (I-270) in Montgomery County.

Western Shore economies have shifted to knowledge-based and service-oriented economies that offer higher wage jobs than

those in other areas of Maryland, such as Western Maryland, Baltimore City and the Eastern Shore, which have not experienced the same rate of growth. Traditional industries like the Maryland waterman, the seafood industry and manufacturing are declining on the Eastern Shore. Agricultural land is being sold for new housing developments.

Eastern Shore counties with the easiest access to employment centers on the Western Shore (Queen Anne's and Cecil Counties) have the highest median income. Residents and businesses in these counties depend on access to the Western Shore. Nearly 42 percent of commuters to the Western Shore come from Queen Anne's County and roughly 15 percent come from Cecil County (though Cecil County residents most likely use I-95 and US 40.) Employment centers on the Western Shore include the Aberdeen Proving Grounds/ Edgewood Arsenal, Johns Hopkins, ISG Steel, the Social Security Administration, Constellation Energy, University of Maryland Medical Center, the Port of Baltimore, BWI Airport, Fort Meade and the National Security Administration, federal facilities in the District of Columbia and the I-270 Biotech Corridor. Recent Base Realignment and Closure (BRAC) plans will result in additional employment on the Western Shore, which will draw from the workforce living on the Eastern Shore. Fort Meade anticipates 10,000 to 15,000 new jobs and Aberdeen anticipates 5,000 new jobs over the next several years. A small percentage of Western Shore residents commute to jobs on the Eastern Shore. Some of this demand is driven by the housing construction and service-based industries on the Eastern Shore.

Economic development opportunities are fostered by affordable broadband access, available land for industrial sites and commercial buildings, water and sewer service availability and sufficient transportation infrastructure. Economic development on the Eastern Shore is limited by the lack of affordable broadband access, although funding is now in place to help provide broadband access. New industrial and technology parks

are being planned in all of the counties on the Eastern Shore.

Large scale businesses may consider the available work force on the Eastern Shore to be too small for their needs. Regardless of recent highway improvements, companies are concerned about a lack of highway accessibility to deliver their products to markets on the Western Shore. For example, during the re-decking of the eastbound span of the Bay Bridge, the Authority limited truck traffic to ease congestion for commuters. Members of the business and transport industries were very vocal about their dependence on a reliable Bay Crossing.

The Lower Eastern Shore (Somerset, Wicomico and Worcester Counties) has plans to diversify its economic base and expand knowledge-based businesses. This region also plans to maintain and lengthen the tourism season and expand its Tourism and Hospitality industry. The region is planning for an incubator facility (relating to agriculture or aerospace) linked to the University of Maryland Eastern Shore (UMES). The region anticipates economic growth in aerospace, distribution, marine industry, agriculture and manufacturing.

The Mid-Shore (Caroline, Dorchester and Talbot Counties) has plans to retain, create and recruit innovative companies that pay higher than average wages. This region will emphasize supporting small local start up companies and entrepreneurs. The Mid-Shore is developing a branding strategy to attract regional markets and expand Heritage Tourism.

The Upper Shore (Cecil, Kent, and Queen Anne's Counties) emphasizes infrastructure, affordable housing, tourism, sustainable agriculture and creating employment opportunities for local residents who commute to the Western Shore.

The Baltimore Metropolitan Region (Anne Arundel, Baltimore, Carroll, Harford and Howard Counties and the cities of Baltimore and Annapolis) will continue development of technology industry, specifically the areas of homeland defense, and research and

Summary of Task Force Meetings



development and will create high-end jobs and high-value manufacturing jobs. The region expects to retain and expand existing businesses and attract new businesses. The region will expand its tax base through new real estate development opportunities. The Bay Bridge is not central to economic priorities because I-95 is this region's transportation corridor.

Southern Maryland (Calvert, Charles and St. Mary's Counties) has one of the lowest unemployment rates in the State (less than 3 percent). The region will retain and expand agriculture and related businesses. The region continues to market itself as good place to live, work and do business. Southern Maryland is developing a regional plan for managing its water resources and planning for existing and projected congestion on major transportation corridors within and leading into Southern Maryland. Within these planning efforts, the region is determining the sustainable ground water yield for sustainable population

for Southern Maryland. This region's low unemployment rate means a new crossing would likely draw from the work force on the Eastern Shore. Counties with higher unemployment rates, like Dorchester County, have an available labor force.

Tourism brings significant earnings to many communities and municipalities in Maryland. In the past fifty years, Ocean City has benefited the most from the construction of the Bay Bridge. In 2003, Maryland's Atlantic beach resorts welcomed 3.5 million visitors. Each year beach visitors spend about \$1 billion. The perception is that Ocean City, Maryland is built out; however, this is not true. Ocean City will have significant housing capacity as former industrial sites and beachfront homes are developed into condominiums. In addition to reducing traffic, Maryland's "Go Early - Stay Late" and "Taking the Heat Out of Summer Travel" programs have yielded additional tourism dollars.

In summary, some key economic indicators show the Eastern Shore counties lagging behind Baltimore-Washington region. The Western Shore counties benefit from their proximity to the I-95 corridor and broadband access. This has enabled the Western Shore counties to transition from agricultural economies to knowledge-based industries. Economic development in the Western Shore counties would not be affected very much by a new Bay crossing because the economic engine depends on the I-95 corridor. The Bay Bridge is critical to the economic vitality of the Lower Eastern Shore because it supports a tourism industry (Ocean City) second only Baltimore City in tourism dollars to the State.