Final Report of the Environmental Policy Task Force



City of Salisbury, Maryland March 2009



EXECUTIVE SUMMARY

The Salisbury Environmental Policy Task Force (EPTF) is made up of a wide array of City and Wicomico County residents who were charged by Mayor Barrie P. Tilghman to deliberate and make recommendations to reduce the environmental impact of the City and her citizens. After six months of active deliberations the EPTF settled upon 22 recommendations which are classified into the following categories: City Facilities, Energy Use, and Operations; Water and Wastewater; Public Open Space; and Sustainable Design.

As a testament to "leading by example", the Mayor requested the EPTF deliberate and make an early assessment on the US Mayors Climate Protection Agreement (also known as the Cool Cities Initiative). The EPTF recommended in October 2008 that it be signed on behalf of the City (page 27). Salisbury now joins over 500 other US cities dedicated to tracking and reducing their greenhouse gas emissions. In addition, Salisbury will benefit by shared learning with the other like-minded cities.

The EPTF recommends other ways for the City to "lead by example" by considering the environment when making decisions that it largely controls. Examples include purchasing hybrid and electric vehicles when appropriate (4.A.9.), using green cleaning supplies (4.A.12.), bulk purchasing of electricity from sustainable sources (4.A.5.), applying LEED standards to new facilities (4.D.1.), while also adopting new codes (4.B.1. and 4.D.2.) and policies (4.D.3.). Citizen education programs are key to ensuring broad support of government actions and can also stimulate citizens to take action within their households and businesses such as reducing water usage (4.B.2. and 4.B.3.).

Management of stormwater systems (4.A.1.) is one of the most under-funded programs within urban areas. Stormwater systems tend to be riddled with old infrastructure and no dedicated funding sources. Yet stormwater can contribute significant pollution, particularly nitrogen, to receiving waters such as the Wicomico River. Establishing a stormwater utility would provide a dedicated funding source that could support staff and equipment, regular street cleaning, and a trash reduction education program.

The City needs to provide its own internal expertise and leadership to ensure that it can achieve and stay on the leading edge of environmental actions and policies. While focused on expanding public open space, including a trail system (4.C.3.), developing a green infrastructure plan (4.C.2.), and protecting and enhancing the tree canopy (4.C.4.), a new position entitled the *Director of Sustainability* (4.C.1.) could provide the necessary leadership for a variety of the recommendations in this report. It is envisioned that this leadership position can also effectively serve as the environmental officer of the City and would assist other departments while providing advice the Mayor and City Council on a wide array of environmental issues.

1. SUMMARY TABLE

Estimates of priorities and costs are considered relative to the other recommendations. The Mayor should consider taking further evaluation and/or action on the priorities ranked "High" regardless of the relative cost. Costs associated with these recommendations could be borne by the City operating or capital budget or the private sector and external funding opportunities should be considered wherever possible (Appendix A).

	ity		
A. City Facilities, Energy Use and Operations	Priori	Cost	age
A-1 Stormwater Utility and Management	High	High	5
A-2 Asset Management	Med	Low	6
A-3 Remote Data Collection System for Work Orders	Low	Med	7
A-4 Track Energy & Water Use by Department	High	Med	8
A-5 Purchasing Electricity from Sustainable Sources	High	Med	9
A-6 Funding for Energy Efficient Upgrades	High	Low	10
A-7 Energy Efficient Street Lighting	Med	High	10
A-8 Energy Efficient Traffic Lighting	Med	Low	11
A-9 City Vehicles: Maintenance, Use and Alternatives	Med	Low	12
A-10 Traffic Flow Optimization	High	Low	13
A-11 Modify Work Crew Schedules	Low	Low	14
A-12 Green Cleaning Products	High	Low	15
B. Water and Wastewater			
B-1 Upgrading City Plumbing Code	High	Low	16
B-2 Reduce Water Consumption and Sewer Discharge	High	Low	17
B-3 Water Conservation and Recycling	High	Low	18
C. Public Open Space			
C-1 Director of Sustainability	High	High	19
C-2 Management and Acquisition Plan for Green Space	Med	High	20
C-3 Develop Recreational Trails	Med	High	21
C-4 Urban Tree Canopy	Med	Low	22
D. Sustainable Design			
D-1 Green Building Standards for City Construction	Med	High	24
D-2 Green Building Code	Med	High	25
D-3 Green Land Development Policies	Med	High	26

2. BACKGROUND OF THE TASKFORCE

2.A. Membership

<u>Task Force Chair</u> Dave Nemazie, University of Maryland Center for Environmental Science

<u>City Council Representative</u> Gary Comegys, City Council Vice-President

<u>City Staff</u> James Caldwell, Director of Public Works Joel Hamilton, Zoo Director

Environmental Groups John Groutt, Wicomico Environmental Trust

Landscape Architect Les Lutz

Engineers

Joseph Arumala, University of Maryland Eastern Shore William Remington, Davis Bowen and Friedel, Inc David Van Der Vossen, Allen & Shariff Engineering

<u>Educational</u> Mike Lewis, Salisbury University Joan Maloof, Salisbury University

<u>Neighborhood Representatives</u> Kay Becque Michael Day Ryan Ewalt Dennis Hailey

Industrial/Commercial Representative Mike Langley, Pepsi Bottling Ventures Tanya Rogers-Vickers, Perdue Farms

<u>Staff Support</u> Lee Beauchamp, Salisbury Public Works Kristin Hathway, Salisbury Public Works

2.B. Charge

The mission of the Environmental Policy Task Force is to help the City of Salisbury develop policies to guide its actions, both internally and externally, as they relate to the

environment. In addition, the Task Force will develop recommendations that the private sector may want to consider as well as a means to educate the citizens of the City. The goal of the City is to ensure that it will make decisions in an informed manner to minimize impacts on the environment.

The Task Force has been appointed by the Mayor to help her develop a policy recommendation for consideration by the City Council. The membership has been drawn from a broad base of interests and backgrounds to facilitate discussion and to insure that the results of the Task Force comprehensively cover the topic.

The Mayor asked the Task Force to take approximately six months to complete its task therefore the recommendations will be general in nature.

2.C. Meetings, process, and deliberations

The Task Force held its inaugural meeting in July 2008 and generally held a two hour monthly meeting thereafter. To facilitate the development of recommendations the members of the Task Force split into four Work Groups: City Facilities, Energy Use and Operations; Water and Waste Water Issues; Public Facilities and Open Space; and Land Use and Sustainable Design. Besides initial organization meetings, the four Work Groups met separately from the Task Force. Each Work Group was asked to update the Task Force on its initial recommendations for broader Task Force discussion and development. This report focuses on 22 recommendations largely developed within one of the four Work Groups.

2. ACTIONS TAKEN BY THE CITY TO-DATE

The City is in the process of developing a comprehensive energy management plan, recently upgraded its wastewater treatment plant, and established a task force focused on making recycling more comprehensive and efficient. The City of Salisbury has hired CQI Associates to prepare a three year energy management plan (EMP) for City facilities that includes energy costs, budget projections, energy procurement programs, short-term energy projects, and long term programs. The Environmental Policy Task Force (EPTF) has met with CQI and reviewed the draft EMP to coordinate the EPTF report with the findings and recommendations of CQI. The finalized EMP is scheduled for completion by the fourth quarter of Fiscal Year 2009.

The Salisbury Public Works Department is nearing completion of a \$80 million dollar, wastewater treatment plant (WWTP) upgrade that will benefit the City and the Wicomico River. The WWTP serves a total population of about 25,000 that includes City users plus some areas in Wicomico County. The upgrade will increase the plants capacity from 5.0 million gallons per day (MGD) to 8.5 MGD and improve wastewater filtration to meet the Maryland Department of the Environment's new Biological Nutrient Removal/Enriched Nutrient Removal (BNR/ENR) liquid and bio-solids processing standards. The plant upgrade has incorporated many environmental and energy saving features that reduce operating cost and improves the quality of treated wastewater

(effluent) that is discharged into the Wicomico River. Some of the improvements include effluent recycling to reduce the amount of clean water needed in the treatment process and tricking filter technology that reduces the need for energy-hungry blowers and diffusers.

Once all the upgrades are online, the bio-solid waste can be dried down for use as Class A bio-solids for landfill cover or land applied fertilizer. The construction phase of the upgrade was completed in the winter of 2008 with a phased start-up underway. The current upgrades are expected to be fully operational by the summer of 2009.

The Mayor appointed a the Salisbury Wastewater Task Force (SWAT) in 2008 to review the operation of the Salisbury WWTP at the request of the Wicomico Environmental Trust concerned with the frequent spills and overflows of the plant and its systems. The SWAT report is near completion and its findings and recommendations will be made public. Because of this, the EPTF did not consider this area in our report conceding the SWAT report would be far more extensive.

In 2006, the City appointed a Recycling Task Force charged with developing recommendations to broaden recycling while make it more effective and cost efficient. This Task Force has been meeting monthly and is expected to report-out in 20XX. Therefore, the EPTF did not consider any recommendations associated with recycling.

4. RECOMMENDATIONS

4.A. City Facilities, Energy Use, and Operations

4.A.1. Stormwater Utility and Management

Synopsis:

The development of a separate stormwater utility division could be responsible for and stay focused on stormwater issues and maintenance of storm drains and the stormwater management system. This division could do education, permitting, planning approvals, capital projects, maintenance projects, enforcement of violations, report on progress/improvements and apply for grants. Capital projects could include water quality structures prior to discharge and catch basin filters to capture trash. Maintenance projects could include cleaning of storm drains, filters, streets near storm drains and other areas that add to contamination of stormwater. Presently the stormwater and storm drains are a lower priority in daily operations than other more noticeable and time demanding street, water and sewer related work. However, stormwater clearly contributes to pollution in the waterways which includes the Wicomico River. In addition, the City should establish a "clean" stormwater program through an education program for citizens to remove yard waste and garbage from stormwater drains.

Regular street sweeping will assist in maintaining the stormwater system. Current street sweeping resources include three operators for three pieces of equipment. The level of service is to sweep all streets monthly with more intense sweeping in various neighborhoods and downtown area. It is generally recognized that the current resources are unable to provide a greater desired level of service. As the City has grown over the

years, the resources have remained the same thus putting additional strain on the stormwater system.

Benefits:

- Stormwater efforts would become a proactive effort, not reactive.
- Efforts to enhance stormwater quality could be more cost effective on improving the environment than other means of non-point source pollution controls .
- The City could encourage developers to ramp-up their stormwater projects to better match new city policy. Reduction in contaminate loading and debris to the Wicomico River and other waterways.

Barriers

- Lack of understanding regarding the impact of stormwater on the environment.
- Need of funding for water quality structures and storm drain filters and manpower to maintain these systems.
- Increasing the level of street sweeping services will require more resources.

Actions Required:

Provide the funding for a Feasibility Study estimated at \$75,000 in the City Budget. Seek grant money to get the stormwater utility established and provide operating capital. Establish another division within the DPW, reporting to its Director.

To more effectively maintain clean streets the City needs additional capital for equipment and staff. Currently the street sweeper staff are pulled from the trash removal crews/staff Trash pick-up takes priority over street sweeping and therefore cleaning streets is done only as staff time permits. If there was a dedicated fund through a stormwater utility the management and costs of street sweeping could be covered and managed separately from the garbage pick-up.

Priority Level and Recommended Time Line

A Stormwater Management Division could be started with approximately three employees, office, truck and minor equipment (one employee could possibly come from another DPW Division). This program could start immediately if there is grant funding available to get initial operating costs. Future capital and operational cost could be from a stormwater utility fee for households, businesses, and new developments. Return on investment will be a cleaner environment and the opportunity to promote the City as an environmentally friendly place to visit, do business and live. If a stormwater utility was established the costs of street sweeping would be covered by the City and would be for both capital and staff. Funds for staff would be required annually with initial increase in capital funds.

Priority - High; Estimated Cost - High

4.A.2. Asset Management

Synopsis:

Computerized Asset Management is a tool to track various public works infrastructure regarding condition, financial value, maintenance scheduling, and work order management. The assets can be traced graphically through a GIS System.

Benefits:

- The various and numerous items of infrastructure are graphically identified and tracked.
- Actual costs incurred in maintenance and operations can be tracked.
- Preventive maintenance can be scheduled and tracked.
- Audit and reporting requirements for capital assets to be met.
- Actual costs for work orders may be back charged to appropriate accounts.

Barriers:

- Purchase of software program.
- Entering the data at start up.
- Requires continual upkeep.

Actions Required:

The purchase of the software is included in the FY 2009 City Budget at \$30,000 and a RFP is anticipated shortly.

Priority Level and Recommended Time-Line:

This program is a much needed and awaited item to assure that the City infrastructure is sustainable. The costs associated with this recommendation would be covered by the Cityand would be for equipment and staff training. Funds would be required once with training and equipment upgrades funded as part of the general fund.

Priority - Medium; Estimated Cost - Low

4.A.3. Remote Data Collection System for Work Orders

Synopsis:

A remote data collection (RDC) system works for the work order scheduling component of an asset management system to allow sanitation crews to locate issues that need to be evaluated by Public Works crews. These items include marking bulk pickups, pot holes, road kill, standing water, clogged storm drains, street sweeping, etc. The RDC works by placing a remote Global Positioning System(GPS) based collection unit in each sanitation vehicle, that has items for evaluation listed on the unit's display. During the normal route of the sanitation crew, if the driver sees one of the items listed, they can record the location of the item with the RDC by pressing a single item on the touch screen display. Once the driver returns to the City Yard the data is wirelessly relayed to the base station where the management team can then assign crews to follow up on the issues observed by the sanitation crews.

Benefits:

• Allowing trash truck drivers to collect and input data while doing normal duties. This is represents an upgrade in job responsibilities for data collectors, increases their engagement in their duties, and responsibilities while fostering greater job pride.

- Freeing up personnel to perform other tasks. If the RDC system is aggressively used to increase efficiency and decrease time on the job, then city employees have more time to attend to tasks that normally might not have been accomplished. These activities include attention to infrastructure care, maintenance and broader tasks.
- Helping you better predict and plan for future resource allocation.

Barriers:

- Cost to purchase the hardware and software required for the system.
- Training personnel on how to use the system and what to look for in the field.
- Requires continual upkeep, both training time and money.

Actions Required:

Add the purchase of hardware and software to the Asset Management package in a request for bids. Implement staff training for use of hardware and software as well as the proper identification of problems in the field. Staff training for use of hardware and software as well as training of staff to properly identify problems in the field.

Priority Level and Recommended Time-Line:

This program is an integral part of the work order component of the Asset Management system. The costs associated with this recommendation would be covered by the City and would include funding for equipment and staff training. Equipment funds would be required once with continual staff training as needed and should become a part of the general fund budget.

Priority - Low; Estimated Cost - Medium

4.A.4. Track Energy and Water Use by Department

Synopsis:

Currently, few, if any, City facilities are metered nor are department heads informed of the energy or water consumption of their departments/facilities. Without this information, department heads cannot effectively manage energy or water resources. Where meters are in place, department heads that manage that facility should be regularly informed of metered usage. Where meters are not in place, meters should be installed over a multiple year period and metered usage reporting should follow. Additionally, annual energy and water reduction goals should be implemented for metered usage that is reported to department heads.

Benefits:

- Informed decision making on all employee levels.
- Could reduce energy and water consumption as well as emissions.

• Gives city more credibility when asking citizens to reduce their energy/water consumption.

Barriers:

- Large upfront cost to install additional meters.
- Requires strong internal management.
 - New reporting mechanism.
 - Department heads manage reductions based on new information and goals.

Actions Required:

This project requires an internal, administrative decision. The City should do an assessment of existing water and energy metering, develop a potential reporting mechanism, and evaluate cost effectiveness.

Priority Level and Recommended Time-Line:

This project could reduce the City's energy and water consumption as well as emissions but cost effectiveness is currently unknown. Still, the project enables the City to "walk the talk" and should be considered a medium priority. Preliminary actions could be initiated immediately. The costs associated with this recommendation would be covered by the city, and would be for capital improvements. Capital improvement funds would be required annually until all of the major city facilities are metered.

Priority - High; Estimated Cost - Medium

4.A.5. Purchasing Electricity from Sustainable Sources

Synopsis:

The City purchases power at a fixed, agreed upon price in advance of its use. Several power companies are currently offering electricity generated from sustainable sources such as wind, solar or geothermal. The rate per KWH is determined by the percent of sustainable energy. As a first step the City should determine if it can purchase between 10-20% of its electricity from sustainable sources.

Benefits:

- Sustainable sources of energy such as wind, solar, and geothermal greatly reduce the emissions of greenhouse gases.
- City purchasing power could encourage the development of locally available sustainable energy sources.

Barriers:

- Costs of sustainable sources of energy may be at a premium.
- Requires the development of a new purchasing contract that is very explicit.

Actions Required:

The City needs to work with its energy consultant to determine the likely cost per KWH of sustainable energy and establish a target goal. This goal can be gradually moved upwards assuming the costs of sustainable energy lower. The bid for the City energy contract needs to be very explicit in its target goals. If and when the contract is finalized

the City should promote it use of sustainable energy and encourage her citizens to do the same.

Priority Level and Recommended Time Line:

The City should prepare a bid for energy that includes a sustainable requirement (recommended at 10-20%) for the next available energy contract. If and when sustainable energy costs decline this percentage should be increased. The City's energy costs are budgeted annually as part of the General Fund.

Priority - High; Estimated Cost – Medium

4.A.6. Funding for Energy Efficient Upgrades

Synopsis:

Many of the city facilities are older and not very energy efficient. The State, through the Maryland Energy Administration, and Federal governments offer low-interest loans and grants to municipalities through financing for projects that have significant energy savings or energy generation. Projects considered for funding can include those that save energy and have a simple payback of seven years or less. All costs necessary for implementing an energy conservation project can be considered for funding, including the technical assessment, reasonable fees for special services, plans and specifications, and the actual costs of construction.

Benefits:

- Ability to make facilities more energy efficient.
- Depending upon the energy upgrades, provide significant cost savings.

Barriers:

- State funding for any one project may not exceed \$600,000.
- There is interest on the loan program (3%), albeit below market rate.
- The State MEA programs generally receive more applications for more funding then is available.

Actions Required:

The City should begin assessing the needs for energy reducing facility upgrades that would fall under State MEA or Federal funding programs.

Priority Level and Recommended Time Line

The City should immediately begin to learn more about the State MEA and Federal grant and loan programs and begin the application process to increase energy efficiency in its facilities. The costs associated with this recommendation would be covered by the City, State, or Federal governments and would be for capital improvements.

Priority - High; Estimated Cost - Low

4.A.7. Energy Efficient Street Lighting

Synopsis:

Annually street lighting costs over \$700,000 of the City Budget. To reduce this amount, more energy efficient street lights could be installed. While these street lights have a higher upfront cost, they reduce electricity load and demand costs as well as maintenance costs. In the near future, some federal, state, nonprofit, or private (Delmarva Power) funding might be available. Salisbury University (SU) is currently studying this topic, and the City should leverage that study.

Benefits:

- Reduce street lighting costs (load, demand, and maintenance).
- Reduce energy consumption.
- Reduce emissions indirectly.
- Improve/create partnering relationships with other entities (if funding is secured).

Barriers:

- Large upfront cost (technology and installation).
- Early stages of efficient street lighting technology.
- The City leases some street lights from Delmarva Power.

Actions Required:

This project requires an internal, administrative decision but relies on partnering with SU and potentially additional funding sources. The City should first team with SU to better understand the technology and cost effectiveness. In parallel, the City should research potential funding opportunities and start evaluating cost effectiveness.

Priority Level and Recommended Time-Line:

This project would reduce the city's energy consumption and emissions, but cost effectiveness is currently unknown. Some preliminary estimates could be taken immediately to determine estimates of cost and if deemed cost-effective, the City can begin to rotate in new technology. The costs associated with this recommendation could be covered by the city, private sector, or the state and would be for new technology. Funds would be required for the operation and maintenance and would become a part of the general fund budget.

Priority – Medium; Estimated Cost - High

4.A.8. Energy Efficient Traffic Lighting

Synopsis:

The Department of Public Works has a policy that new traffic light systems installed in the city must be light-emitting diode (LED) light systems. Still, LED light systems should replace existing traffic lights. While LED traffic lights have a higher upfront cost, they reduce electricity load and demand costs as well as maintenance costs. In the near future, some federal, state, nonprofit, or private (Delmarva Power) funding might be available. Additionally, the steady energy consumption of traffic lights make them strong candidates for energy performance contracting that allows energy savings to pay for the new technology over time. If energy performance contracting is used, all lights could be replaced at once. Otherwise, lights could be replaced over a multiple year period.

Benefits:

- Reduce traffic lighting costs (load, demand, and maintenance).
- Reduce energy consumption.
- Reduce emissions indirectly.
- Improve/create partnering relationships with other entities (if funding is secured).

Barriers:

- Large upfront cost (technology and installation).
- Performance contracting requires strong contract management.

Actions Required:

This project requires an internal, administrative decision but potentially relies on additional funding sources. The City should research potential funding opportunities, including energy performance contracting, and start evaluating cost effectiveness.

Priority Level and Recommended Time-Line:

Since this project would reduce the city's energy consumption and emissions but cost effectiveness is currently unknown. The costs associated with implementing this recommendation could be covered by the city, private sector, or the state and would be for new technology. Changing the traffic lights may be ripe for a performance contract funded through costs associated with energy savings. Funds would be required either annually or as needed and would become a part of the general fund budget.

Priority - Medium; Estimated Cost - Low

4.A.9. City Vehicles: Maintenance, Use, and Alternatives

Synopsis:

In general, a much larger car or truck is used then what is required for the transportation needs or task at hand. The larger the vehicle the less fuel efficient it generally is and the more it pollutes. For non-emergency vehicles, the carpool should only offer small four passenger vehicles with four cylinder engines. If the City purchases alternative fuel vehicles their use should be a priority over older standard vehicles. In addition, a flier containing "tips for fuel efficiency" should be placed in each vehicle and tire pressure should be checked at least monthly and prior to long trips (250+ miles). In addition, fuel costs should be monitored by Department heads so they can track and reduce overall fuel consumption.

Multiple types of hybrid and alternative fueled vehicles now readily exist in the retail market. Depending upon the mix of fuel and/or power source these vehicles significantly increase fuel efficiency and often reduce pollution output. The most common types of vehicles currently on the market are electric vehicles, gas/electric hybrids, use of E85 (85% ethanol) fuel, bio-diesel, and natural gas powered vehicles.

Benefits:

• Gas/electric hybrids generally offer significant fuel efficiency and reduced emissions over non-hybrid models.

- Electric vehicles have limited speeds and range but may be highly useful for tasks that occur within the city limits.
- Immediate fuel saving costs.
- Reduction in emissions.
- Educate the employees on the best methods for fuel efficiency.

Barriers:

- Currently there is a premium cost to the purchase price of vehicles using alternative power systems.
- Newer vehicles will have a greater mileage rate.
- Older vehicles would not be used as much as have a lower rate of turnover and may require additional maintenance due to age.

Describe the Type(s) of Action(s) Required:

Replace carpool vehicles with alternative fueled vehicles when new vehicles are purchased. The carpool manager should begin a program to ensure that user needs are met by the smallest vehicle available. In addition, each car should have an education piece in the vehicle that lists "tips for fuel efficiency." Department heads should also be asked to monitor fuel consumption with an eye toward reduction.

Priority Level and Recommended Time Line

The costs associated with matching user needs to vehicle would be minimal and should be covered by current staff. Tips for fuel efficiency can be downloaded from the web (www.fueleconomy.gov/) and distributed into each carpool vehicle. Recommend gas/electric hybrids for vehicles that often go beyond the city limits and electric vehicles for cars that stay within the city limits. This cost difference may take several years to recover from the difference in fuel cost and efficiency due to the premium cost of the vehicles. The costs associated with this recommendation would be borne by the City in its Capital Equipment Budget only when vehicles are being replaced.

Priority - Medium; Estimated Cost - Low

4.A.10. Traffic Flow Optimization

Synopsis:

The City is currently working to upgrade traffic signals with LED light systems, however the City does not have a traffic flow model to evaluate the traffic network or a signal coordination system. Traffic signal coordination and traffic modeling allows major traffic corridors to be controlled to optimize the traffic flow and reduce vehicle and pedestrian delays.

Benefits:

- Improves vehicle and pedestrian safety.
- Improves fuel efficiency and decreases pollution generated by vehicles sitting in traffic.
- Alleviate citizen frustration.
- Able to model future development within the City and surrounding areas.

• Planning tool for future traffic improvements.

Barriers:

- Modeling program hardware and software costs.
- Entering the data at start up.
- Requires continual upkeep.
- Cost of initial hardware and software in traffic signals.

Actions Required:

Create an RFP for professional services to create the base traffic model and train City staff to operate and modify the model. Create a plan to upgrade existing traffic signals for compatibility with coordination system.

Priority Level and Recommended Time-Line:

This action will allow the City to monitor existing traffic flow and provide a planning tool for future traffic improvements. This project should be budgeted in FY2010 Capital Improvement Plan. The costs associated with this recommendation would be covered by the City. Funds would be required once.

Priority - High; Estimated Cost - Low

4.A.11. Modify Public Work Crew Schedules

Synopsis:

Many municipalities around the country are modifying employee schedules to conserve energy in facilities and equipment. One method is to modify the work hours of some Public Works field crews, such as the Water/Sewer Utility, Roads, and Sanitation crews, to 4 - 10hour days per week. This schedule would allow the crews to mobilize heavy equipment and still have 8+ hours to perform tasks that may have taken two 8 hour days before. The facilities and heavy equipment used by these crews can be shut down for the extended three day period to provide additional energy savings. The City should conduct a pilot study of modifying work crew schedules from June-August and determine its effectiveness during the summer.

Benefits:

- Reduce overtime expenses for emergency repairs that may be needed during the extended work day.
- Reduce energy cost by shutting down the temporary office trailers and old inefficient buildings used by the Utilities Branch.
- Employees who drive to work benefit by saving a round trip worth of fuel each week.
- Public Works employees working in the Government Office Building will still work 5- 8hour days to service citizens.

Barriers:

- Public Works employees working in the Government Office Building would not have field crew support on off days.
- Infrastructure and weather emergencies that occur on the off day will need to be covered by overtime pay.

• Some municipalities have experiences worker fatigue with a 10 hour day.

Actions Required:

Public Works should evaluate and identify what crews would benefit from this type of work schedule and begin a pilot program from June-August with a small group of employees.

Priority Level and Recommended Time-Line:

This method has proven to be very successful in other municipalities with little upfront cost. The pilot program with one Public Works field crew should begin from June-August and see if it can be expanded to other field crews during the summer.

Priority - Low; Estimated Cost - Low

4.A.12. Green Cleaning Products

Synopsis:

The ingredients found in one out of three commercial cleaning products are potentially harmful to human health and the environment. Custodial staff and people who spend a lot of time indoors, such as office workers, are particularly susceptible to the health risks posed by these products. It is imperative that the City review current cleaning and purchasing practices to asses the impact these products and procedures have on the health and safety of personnel, citizens, facilities, and the environment. The City should adopt green cleaning standards such as Green Seal® and the U.S. EPA Design for the Environment Formulator Initiative.

Benefits:

- Improves indoor air quality.
- Reduces cleaning related health problems and absenteeism.
- Increase employee productivity and morale.
- Reduce the disposal of harmful chemicals into the local landfill and wastewater treatment system.

Barriers:

- Requires employee training to ensure custodial workers are using cleaning products properly.
- Using different sources to purchase green cleaning products.
- Purchasing new cleaning equipment (micro fiber mops, high efficiency filtration vacuum cleaners, etc.).

Actions Required:

The City should form a team to review current cleaning products, procurement of cleaning products, and develop a plan to measure results. Adopt a policy to formalize the City's commitment to purchasing cleaning products that minimize the effects on human health and the environment. Implement the policy by using nationally accepted standards and train custodial staff and employees on the new standards and specifications.

Priority Level and Recommended Time-Line:

Implementing green cleaning practices can be done with zero to little additional cost and a team should be formed immediately to review current standards.

Priority - High; Estimated Cost - Low

4.B. Water and Wastewater

4.B.1. Upgrading the City Plumbing Code

Synopsis:

Provide for the ability of developers and home owners to use and encourage alternative methods of water use and conservation by revisions to the City's Plumbing Code. In order to save and preserve finite resources the City's Plumbing Code should be revised to not only mandate in some instances but also encourage the use of innovative technologies and methodologies in both conservation of water and grey water reuse. The city should also pursue the sale of wastewater effluent for industrial use and to rural areas for irrigation .

Benefits:

- Reduction in overall water use.
- Reduction in wastewater treatment.
- Reduction in amount of treated effluent released into the Wicomico River.
- Increase in life span capacity of existing water production and sewer treatment facilities.

Barriers

- Lack of official determination of how grey water can be used in the city's code.
- Lack of actual cost benefit to use of grey water in project development.
- Resistance to use latest water saving devices and the inability of the cost savings to be passed on to the developer upfront.
- Commercial and industrial users may be resistive to code requirements for grey water reuse.

Actions Required:

Investigate and implement code requirements where it makes sense to use grey water reuse technology, such as car wash facilities. Work with state officials to determine if sewer effluent could be used for spray irrigation in rural areas and investigate the economic feasibility. The plumbing code could use the National Standard including water saving devices and provide Supplemental Standards specific to the City. The code should provide for a methodology to include capacity fees where upfront cost of water conservation devices can be quantified and the credit can be realized by the developer upfront with the ability of the city to recoup any shortfall in conservation.

Priority Level and Recommended Time Line

Plumbing code revision could be immediate for some opportunities and water conservation incentives. Code reform in itself would have little or no fiscal impact. Treated effluent reuse and grey water reuse will take longer to implement but the concepts should be investigated in a systematic way with a vision on the future. Staff time or consultant services to examine the feasibility of waste water plant treated effluent reuse will be required. If feasible the long term benefit to the river and irrigation aquifers would have to be balanced with possible infrastructure cost. Capacity fees to implement water savings measures should be at best revenue neutral. However, if the benefits are more then envisioned the scope or capacity lifecycle of facilities the capacity fee can be reduced. Return on investment will be related to the longevity of our treatment and production facility as it relates to capacity. Increasing the life cycle as it relates to capacity can help reduce fees and open capacity for more economic investment. The costs associated with this recommendation would be covered by the City for upgrades to the plumbing code and feasibility study of use of effluent. The private sector would pick up the cost of retrofits. Funds would be required as needed cost of business.

Priority - High; Estimated Cost - Low

4.B.2. Reduce Water Consumption and Sewer Discharge

Synopsis:

Enhance the efforts of the Water Department in education of the public. While funds and resources are limited the Department has to proactively engage the public on the need for water conservation. The city needs to utilize partners, from the private and on-profit sector, in a synergistic way to have a consistent message that is delivered through many communication vehicles. Raising the water quality entering the wastewater treatment plant (such as by reducing grease and pharmaceuticals) is also important to minimizing the costs and improve effluent quality.

Benefits:

- Overall reduction in water usage.
- Reduction in volume loading into the Wicomico River.
- Less effluent being delivered to the waste water treatment plant.
- Grease and pharmaceuticals reduction in drains.
- Reduction of potential hazards from entering the river system.

Barriers

- Resistance to change.
- Difficult to quantify success or assign accountability by activity.
- Mobilizing multiple private and non-profit organizations to execute message.

Actions Required:

The Water Department should lead an effort to identify groups involved with protecting water resources and discuss the best methods to educate the citizens on proper disposal of undesirable waste from entering the sewer system. The quarterly water bills could be used as an education mechanism as well as the web, signs in public restrooms, and classrooms.

Priority Level and Recommended Time Line

A well formulated education program with efficient message delivery (such as, water bill) could have largest impact with a relatively low investment cost and can be implemented within a year. The costs associated with this recommendation would be covered by the City and would be for education materials. Funds would be required annually and should become a part of the general fund budget. The consumers would have reduced costs through water savings and the City's infrastructure should last longer.

Priority - High; Estimated Cost - Low

4.B.3. Water Conservation and Recycling

Synopsis:

Provide upfront impact fee credit for developers of new private residential developments using water/sewer conservation devices and gray water reuse/recycling practices for all new developments. Developers would have to demonstrate the water/sewer reduction annually and provide payments for credits not earned. Reducing the needs for water and sewer facilities would avoid costly upgrades to treatment and disposal infrastructure, but still provide opportunities for development and growth. The maximum credit could be capped (for example, at 25%) and justification would be required based on permanent conservation fixtures and equipment.

Benefits:

- Existing water and sewer facilities would have an extended life.
- Incentive to promote water construction by development/businesses in the City.
- Reduction in water needs from aquifers and reduced cost of water treatment.
- Reduction in loading to the Wicomico River and other waterways.
- Provide developers with reduced development costs and thus promoting additional private investment in the City.

Barriers

- Conservation would need to be based on permanent devices and equipment; and not on procedures because of possible changes.
- Setting up agreements that bind future property owners that do not meet expectations and receiving these payments without lengthy and costly legal action with possible bonding of saving until results are confirmed.

Actions Required:

Modifications to City codes would need to occur as well as the verification of the benefit and costs. There would need to be some consistency with recent developments and developments now in the application stage. Additionally, there would need to be a agreement with the broad development community on the allowable conservation devices and equipment.

Priority Level and Recommended Time Line

The recommendation could be immediately implemented once the code modifications and conservation measures are agreed upon. Cost of reduced impact fees would have to be offset by reduction in capital and operating costs. While the return on investment will be related to lower costs of services to new developments and opportunities to promote additional developments that are environmentally friendly. The costs associated with this recommendation would be covered largely by the private sector with additional costs to the City for development of new codes and staff training. As new developments with conservation measures are constructed, the water and sewer impact fees would be lower to match the reduced cost of delivery of these services to the developments.

Priority - High; Estimated Cost - Low

4.C. Public Open Space 4.C.1. Director of Sustainability

Synopsis:

Identify or hire a person whose primary duty is to develop, coordinate and administer a master plan for parks (maintenance and land acquisition), trails (hiking and biking, water), improving Public Transportation, Chesapeake Bay Urban Tree Canopy Program and grant writing to support these and other green efforts. This is needed to progress beyond the current inefficient and uncoordinated system due to work overload on the persons currently assigned to handle them.

Benefits:

- Obtain significant outside funding sources (currently missed).
- Coordinate efforts of City, County, State, Board of Education, and private organizations that want to improve trails, parks, increase green canopy, improve water quality, etc.
- Lower costs and improve services through volunteers, use of incarcerated for maintenance, citizen engagement (e.g. "adopt a park/trail"), etc.
- Provide focused attention on efforts to enhance beauty, livability, and environmental stewardship within the City.

Barriers:

- Current economic downturn and City financial constraints.
- Other areas are perceived as higher priorities.
- Planning conflict between governments and private sector. Resistance to change.
- Possibility of overloading new position with too many duties.

Actions Required:

Add new position of Director of Sustainability within the Department of Public Works. The new staff member must be able to search and apply for grants to help underwrite projects; develop a master plan for parks, trails, urban tree canopy program, other "green" initiatives recommended by subcommittees of the EPTF.

Priority Level and Recommended Time Line:

This position is needed to implement and supervise the implementation of several other new initiatives recommended in this report. The position should be assigned or hired within a year. The costs associated with this recommendation would be covered by the City with potential support from foundations. Funds would be required annually for the staff in the general fund.

Priority - High; Estimated Cost - High

4.C.2. Management and Acquisition Plan for Green Space

Synopsis:

Urban parks and green spaces are essential elements in healthy urban life. They provide psychological and aesthetic benefits, as well as valuable ecosystem functions. Public spaces also build community and civic identity. As the City's population grows and development continues on private property, the need to develop a long-term management and acquisition plan for city-owned parks is needed to better utilize those that already exist, and to expand into areas that are currently under-served by green spaces and parks.

Benefits:

- Green Space Plan:
 - creates a system for revenue generation and fundraising based on existing parks.
 - o focus on ways to reduce overall existing maintenance costs.
 - creates structure for accepting and encouraging potential land donations to the city.
- Development of Parks
 - \circ urban green spaces lead to improved quality of life for residents.
 - \circ attractive urban environment while reducing runoff and urban heat effect.

Barriers:

- No central person or agency to coordinate efforts, provide a vision, or write the plan.
- No existing plan to work off of; perhaps perceived lack of need for a management plan.
- Some people feel "we have enough parks already," or county parks are sufficient.
- Budget constraints: the cost of reallocating labor to write a plan, and implementation costs.

Actions Required:

As the City population grows, our park system should grow. City parks should be managed as part of a coherent vision of urban green spaces within an easy walk of every resident, linked by recreational trails. Neighborhoods without public green spaces should be identified and acquisition of nearby parkland made a priority, as funds and opportunities arise. The North Prong redevelopment plan should be part of a larger plan for Salisbury's green spaces and urban parks. New parks along waterways could become storm water runoff catchments.

All of these actions are in conformity with the US Mayors Climate Protection Agreement, section C.2: "Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities." Creating a master plan for management protocols and expressing a vision for a Green Salisbury is a necessary, and inexpensive, first step.

Currently no one is responsible for overseeing public parks in the city other than as maintenance items. This lack of a management plan limits the cultivation of neighborhood volunteers (with the notable exception of the City Park and Zoo), and of raising revenue through fundraising, grant-writing, or user fees (as the county does). The city should consider working closely with the county – closer partnerships (specifically with regard to maintenance) might provide cost savings. However, the City cannot rely upon the County to acquire additional land for parks, as they may have differing priorities.

Priority Level and Recommended Time Line

Creation of a master-plan and management document is considered a high priority and should be an important part of the Director of Sustainability that is part of Recommendation C-1. The costs associated with this recommendation would be covered by the City and potentially the private sector through land donations. Additional capital funding may be needed for land acquisition.

Priority - Medium; Estimated Cost - High

4.C.3. Develop Recreational Trails

Synopsis:

Recreation trails can be used by pedestrians and bicyclists as an alternative form of transportation. These trails are safest and most enjoyable when they are separated from automobile traffic (especially when families are traveling with children). The City is small enough that many trips could be made by bicycle if appropriate trails existed.

Benefits:

- Less traffic congestion.
- Better air quality.
- Healthier citizens.
- Better quality of life.

Barriers:

- No central person to coordinate efforts and initiatives and provide a vision.
- No master plan.
- Lack of coordination and follow up between and within city, county, state, and railway company.
- Neighbor resistance: Private fears of easements going through their land; liability issues; perceived public safety fears, crime, etc.

Actions Required:

In the Mayors Cool Cities Initiative Appendix), transportation options are a recommended action. Although there seem to be a number of ongoing attempts to create recreational trails in Salisbury our committee was unable to find a single individual or a single document where all this information was brought together in one place. We would

like to see an individual named to coordinate all of these disparate attempts. This individual should meet and coordinate efforts with the Urban Greenway Group; the County Recreation, Parks and Tourism Department; the State Highway Administration; and the Salisbury/Wicomico Planning Department. Ideally the trail coordinator would also establish a good a working relationship with the railroad track owners since the rail line that runs through the center of Salisbury may be a good place to locate a section of the trail.

A Recreational Trail Master Plan should be produced and distributed, and existing businesses along the trail should be contacted to request trail easements. New development along the trails should have built-in easements as a requirement. (Please see *How to Build a Path in your Community* by Anne Lusk, 1986, available from Division of Recreation, Waterbury, VT, (802) 828-3375.)

Having a completed Master Plan, and having one person coordinating the development of the trail, will make fundraising easier. There are grants and fundraising opportunities for recreational trails that Salisbury is currently not requesting. For instance, there is a grant available from the State Highway Administration for acquiring easements and developing trail systems. The grant, which covers 80% of project costs, has been offered the past few years but Salisbury has not applied for it. In Stowe, Vermont, citizens donated money to "buy" pieces of their well-loved path, and the names of donors were published in the newspaper. The Seagull Century bike ride brings thousands of bicycle aficionados to Salisbury every year; their registration fees and check offs raise hundreds of thousands of dollars per year. It is likely that many of the riders would support Salisbury's attempt to build a recreational trail if asked. These are just a few of the many opportunities available for fundraising.

Priority Level and Recommended Time Line:

The City should name a coordinator as soon as possible with the goal of applying for a SHA grant within a year. A trails master plan should be completed within a year with implementation over the next several years. The costs associated with this recommendation would be covered by the City with potential support from foundations and State Highway Administration and would be for a new staff member and potentially for the purchase of land or easements. Funds would be required annually for the staff in the general fund and part of the capital budget for the purchase of the land.

Priority - Medium; Estimated Cost - High

4.C.4. URBAN TREE CANOPY

Synopsis:

An urban tree canopy is an essential component of a healthy urban environment. Trees improve the air we breathe and the water we drink as well as the overall appearance and psychological effect on those in the community. They increase property values and lower energy costs while providing a place for birds and other wildlife.

Benefits:

- Better air quality by absorbing carbon dioxide (helping to lessen our carbon footprint).
- Less stormwater run-off by absorbing rainwater and stabilizing soils.
- More attractive streetscape.
- Lower home energy bills by providing shade and reducing winds.
- Better quality of life.
- Improved property values.
- Provide wildlife habitat.

Barriers:

- No central person to coordinate efforts and initiatives with DNR and to implement the plan.
- No master plan or list of appropriate trees for use.
- City staff concerns regarding the planting of trees in city easement.
- Homeowner resistance due to possible costs of maintenance as well as possible damage to aging infrastructure.
- Unfortunate history of damage caused previously by inappropriate trees which damaged infrastructure.

Actions Required:

With a strong educational campaign, this may be a somewhat easier goal for the city to achieve as much of the cost is born by individual homeowners planting trees on their properties. The city should apply for grants for the funding of planting of trees on City property and streets, and on private property with owner's cooperation (more information: www.dnr.state.md.us/forests/programs/urban/urbantreecanopygoals.asp). A city-wide educational program should be implemented to inform homeowners and businesses of the benefits of trees and to help build citizen support and participation and to help assure success. Community volunteers should be coordinated to minimize costs and help build support. In addition, the city should seek grants to bury overhead utility lines (electric, phone and cable) when possible. Communities should be encouraged to 'adopt' trees to plant and care for them to help assure the city-wide tree canopy. A satellite photo of the city will reveal areas that should be targeted for planting.

Priority Level and Recommended Time Line:

A grant should be secured within a year and a plan should be undertaken to determine areas to be targeted. A program should be undertaken to educate the public as to the benefits of an Urban Tree Canopy. This should be completed within a year, with implementation over the next several years. The costs associated with this recommendation would be covered by the City with potential grants from the Maryland Department of Natural Resources and foundations. Funds would be required annually and should become a part of the general fund budget.

Priority - Medium; Estimated Cost - Low

4.D. Sustainable Design4.D.1. Green Building Policy for City Construction

Synopsis:

Several tools are available to implement and define energy efficient and green building projects. These tools include the International Energy Code, DOE COMCheck and RESCheck and the LEED® rating system. In following with the intent of article C5 of the US Mayors Climate Protection agreement it is proposed to implement a stepped Green Building program for all city government construction projects both new construction and renovation. Proposed language has been included as Appendix B. The proposed program would increase requirements as the project size increases to minimize cost implications on smaller projects. Most studies show paybacks on the premium cost for green construction to be conservatively between 5 and 10 years. The city should take the opportunity to lead by example with this policy. One potential project under this program would be to replace the Vehicle Maintenance Building. A recent report prepared for the city noted this building as the most inefficient and it tops the Public Works Department current facility replacement list.

Benefits::

- Buildings use less energy, water and natural resources; create less waste, lower energy bills.
- Healthier buildings, lower VOC's & other indoor toxins, more productive employees.
- Promote reduced greenhouse gas emissions and lessen exposure VOC's and other indoor toxins.
- More sustainable construction practices.

Barriers:

- **Outreach and Training.** There is a need for outreach, education, and training in every sector regarding green building.
- **Construction and Design Costs:** Green construction methods represent a 0-15% premium in different studies. Payback periods are typically 5-10 years. Administrative and design costs for LEED registered projects need to accounted for.

Actions Required:

Develop and pass new city facility green construction policy incorporating a stepped requirement. Proposed wording has been included in Appendix B. Incorporate revisions into RFP and procurement policies and procedures.

Priority Level and Recommended Time Line:

Minor costs would be required to develop and adopt the green building policy. Premium construction, design and administrative costs would need to be included into construction budgets for proposed construction projects. Reduced energy costs and higher worker productivity would reduce long term costs and typically provide 5 - 10 yr paybacks.

Priority - Medium; Estimated Cost - High

4.D.2. Green Building Code

Synopsis:

This recommendation parallels the recommended Green Building Policy for City Government Construction. Several tools are available to implement and define energy efficient and green building projects. These tools include the International Energy Code, DOE COMCheck and RES Check and the LEED® rating system. In following with the intent of article C5 of the US Mayors Climate Protection agreement it is proposed to implement a stepped Green Building Code. Proposed language has been included as Appendix B. The proposed program would increase requirements as the project size increases to minimize cost implications on smaller projects but to encourage compliance with codes not currently actively enforced. City costs are primarily related to staff training and code changes. Enforcement costs are minor as outlined.

Benefits: Green Buildings:

- Use less energy, water and natural resources; create less waste, lower energy bills.
- Healthier buildings, lower VOC's & other indoor toxins, more productive employees.
- Promote reduced greenhouse gas emissions and lessen exposure VOC's and other indoor toxins.
- More sustainable construction practices.

Barriers:

- **Outreach and Training.** There is a need for outreach, education, and training in every sector regarding green building.
- Other Jurisdictions w/ dissimilar requirements: An outreach to the County and other local jurisdictions should occur so that similar requirements can be implemented in the County to even the playing field and not incentivize projects to move out of the City to the County or other local jurisdictions.
- **Increased upfront construction and design cost for developers:** While increased costs are usually offset by 5-10 year payback periods, this timeframe may be longer then is typically acceptable for some developers. This can also be offset with increased property and rent values associated with green construction projects.

Actions Required:

Revise/adopt building codes to require green building practices. Education of city permit officials would need to occur and outreach/education to the development community could be considered.

Priority Level and Recommended Time Line:

Cost of code enforcement on private commercial projects is negligible but the costs to the private sector of implementing a green building practices will be more significant. Using the stepped approach reduces the impact of higher design and administrative costs

associated with LEED certification. Larger projects are more able to absorb the costs as the percent impact on costs is significantly less.

Priority – Medium; Estimated Cost - High

4.D.3. Green Land Development Policies

Synopsis:

Green land development consists of two phases. Phase one is the consideration of where new development should be allowed. Phase two is the implementation of standards that reduce the environmental impacts of development. Salisbury should incorporate environmental considerations into all phases of the land development process by developing land use policies that preserve open space; and where construction is considered reasonable and desirable, by developing guidelines that will reduce negative environmental impacts.

Benefits:

• Green land development reduces stormwater runoff, decreases soil erosion, and increases aquifer recharge.

Barriers:

• There is a need to carry out an education/outreach program on green development and land use programs.

Actions Required:

Develop building and construction standards that endorse the use of environmentallyfriendly systems like permeable surfacing for parking lots and walkways, and requiring bio-swales in parking lots and other large hard surfaces (to mitigate runoff and reduce pollutants flowing into the storm water system). Require a strong "caliper-for-caliper" replacement of trees removed for construction in both commercial and residential developments.

Priority Level and Recommended Time-Line:

Priority level is high. This recommendation should be initiated in the next fiscal year with a view to implementation in the second fiscal year.

Priority - Medium; Estimated Cost - High

5. COOL CITIES INITIATIVE

In the fall of 2008, the EPTF was asked to consider and make a recommendation regarding if Salisbury should become a signatory to the nation-wide US Mayors Climate Protection Agreement.

The US Mayors Climate Protection Agreement was launched by Greg Nichols, the Mayor of Seattle, in 2005 to advance the goals of the Kyoto Protocol through leadership

and action by at least 141 American cities. To-date over 500 cities have signed on to the agreement, including eleven in Maryland.

Under the Agreement, participating cities commit to actions including: 1) Strive to meet or beat the Kyoto Protocol targets in your own community, through actions ranging from anti-sprawl land-use policies to urban forest restoration projects to public information campaigns; 2) Urge the federal and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7% below 1990 levels by 2012; and 3) Urge the U.S. Congress to pass the bipartisan greenhouse gas reduction legislation.

The vast majority of the Environmental Policy Task Force members voiced strong endorsement of the US Mayors Climate Protection Agreement at its October meeting. Below is a sampling of the comments voiced at that meeting:

- The City will be well served by signing the Agreement and thus interacting and learning from its peers in ways to reduce greenhouse gas emissions;
- The City regularly requests actions from state and national governments and should add the reduction of greenhouse gas emissions to its list of action items;
- The City should inventory and track its greenhouse gas emissions with an eye toward reducing them; and,
- While the Agreement may be imperfect, the benefits of it far outweigh any of its weaknesses.

It should also be noted that a member of the Environmental Policy Task Force has voiced concern of the City encouraging the enactment of the Kyoto Protocol as it may cause economic harm to our community. However, this same member fully endorses the Mayor striving to implement every item listed under category C of the Agreement as revenue allows.

Mayor Tilghman signed the US Mayors Climate Protection Agreement in November 2008 (Appendix D).

Appendix A

Extramural Funding Opportunities

Below is a short list of examples of informational resources, funding programs, and opportunities that the City may want to consider in implementing the recommendations of the EPTF.

City Facilities, Energy Use, and Operations

The Maryland Energy Administration has several programs that support local government energy conservation programs. These include a revolving loan programs (at a reduced interest), grant funding, and support of performance contracting. <u>http://energy.maryland.gov/incentives/state-local/</u> <u>http://energy.maryland.gov/incentives/state-local/janeelawton.asp</u> <u>http://energy.maryland.gov/incentives/state-local/epc/index.asp</u> <u>http://www.goodtobegreen.com/md_renewables_rebate.aspx</u>

The Federal Government also supports a wide range of energy conservation programs which include funding for weatherization for local governments or for homeowners. <u>http://apps1.eere.energy.gov/wip/block_grants.cfm</u> <u>http://apps1.eere.energy.gov/weatherization/apply.cfm</u>

The Federal Government has resources regarding fuel efficiency and driving tips as well EPA approved miles per gallon listings for all vehicles sold in the United States. www.fueleconomy.gov/

Public Open Space

There are mechanisms as well as grants, private partnerships and other creative funding methods available to finance the development of trails.

http://www.railstotrails.org/whatwedo/trailbuilding/technicalassistance/toolbox/20080710 _funding_financing.html

In addition, Maryland's Program Open Space (POS) is a nationally recognized program with two components, a local grant component often called Localside POS and a component that funds acquisitions by the State. The first component provides financial and technical assistance to local subdivisions for the planning, acquisition, and/or development of recreation land or open space areas, including dedicated funds for Maryland's state and local parks and conservation areas. http://www.dnr.state.md.us/land/pos/index.asp

There are many resources available for local governments to pursue establishing urban tree canopy goals as well as assistance for citizens to grow trees in Maryland. http://www.americanforests.org/resources/urbanforests/treedeficit.php http://www.trees.maryland.gov/

Sustainable Design

The Maryland Environmental Design Program provides the business community, local governments and interested citizens with the information and on-site technical assistance they need to identify, implement and evaluate actions to enhance and restore natural resources in and around developed environments. http://www.dnr.state.md.us/ed/

The U.S. Department of Energy's Building Energy Codes Program is an information resource on national model energy codes. They work with other government agencies, state and local jurisdictions, national code organizations, and industry to promote stronger building energy codes and help states adopt, implement, and enforce those codes.

http://www.energycodes.gov/ http://www.energycodes.gov/comcheck/ez_download.stm

Several tools are available to implement and define energy efficient and green building projects including LEED Certification programs. <u>http://www.usgbc.org/</u> <u>http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1718</u>

Appendix B

Example of a Job Description

Director for Sustainability

The City of Salisbury is committed to sustainability and being a local government leader that turns ideas into action and results. The Director of Sustainability will use the recommendations in the Report of the Salisbury Environmental Policy Task Force as guides for implementing and expanding sustainable policies and practices to the Mayor and City Council. He/she will work to make Salisbury a viable and lasting model for other communities and continue to generate and develop additional sustainable policies and practices in other areas of City functions.

The four general categories of the EPTF Report: (A.) City Facilities, Energy Use and Operations, (B.)Water and Waste Water, (C.) Public Open Space and (D.) Sustainable Design each contain recommendations to make the City a leader in sustainable practices. Using the Report as an initial guidepost, the successful candidate will focus on each of the twenty-two priorities and conduct cost analyses to make final determinations. He/she will seek outside grant/governmental funding to help support as many of these initiatives as possible.

Qualifications include a Bachelor's degree, at least 5 years of significant experience in municipal government, business or the non-profit sector; excellent management, collaboration and communication skills; grant writing skills/experience; and familiarity with environmental and legislative developments related to climate change and sustainability.

Ideal Candidate: A person committed to making Salisbury a leader in sustainability, prepared to help shape critical energy, water, open space and sustainable design initiatives in a demanding public environment, and proven ability to obtain grant funding.

Appendix C

Green Building Code/ Green Building Policy For City Gov't Construction

• All projects over <u>2,500 commercial/ 0 public</u> square feet shall have a DOE ComCheck submitted. The ComCheck shall be stamped by a MD registered architect and engineer.

The ComCheck is a free DOE program that has four sections; building envelope, mechanical, interior lighting, exterior lighting. The building envelope section lists a percentage better then code required minimum. DE requires this on all projects over 5,000 square feet. This will ensure that projects are meeting the code minimum.

• All projects over <u>5,000 commercial/2,500 public</u> square feet shall exceed the code minimum standard by <u>15%</u> in the submitted DOE ComCheck. Projects shall have a stamped letter submitted by the architect and engineer stating that the project as designed meets the requirements of the current (2006) IEC (International Energy Code).

• All projects over <u>10,000 commercial/ 5,000 public</u> square feet shall exceed the code minimum standard by <u>25%</u> in the submitted DOE ComCheck. Projects shall have a stamped letter submitted by the architect and engineer stating that they have visually surveyed the completed project and that the completed installation meets the requirements of the current (2006) IEC (International Energy Code).

This will ensure that the energy efficiency measures designed into the project will not be eliminated as constructed.

• All projects over <u>25,000 commercial/ 15,000 public</u> square feet shall obtain LEED certification.

• All projects over <u>50,000 commercial/ 30,000 public</u> square feet shall obtain LEED silver certification.

Appendix D

Cool Cities Initiative

ENDORSING THE U.S. MAYORS CLIMATE PROTECTION AGREEMENT

WHEREAS, the U.S. Conference of Mayors has previously adopted strong policy resolutions calling for cities, communities and the federal government to take actions to reduce global warming pollution; and

WHEREAS, the Inter-Governmental Panel on Climate Change (IPCC), the international community's most respected assemblage of scientists, has found that climate disruption is a reality and that human activities are largely responsible for increasing concentrations of global warming pollution; and

WHEREAS, recent, well-documented impacts of climate disruption include average global sea level increases of four to eight inches during the 20th century; a 40 percent decline in Arctic sea-ice thickness; and nine of the ten hottest years on record occurring in the past decade; and

WHEREAS, climate disruption of the magnitude now predicted by the scientific community will cause extremely costly disruption of human and natural systems throughout the world including: increased risk of floods or droughts; sea-level rises that interact with coastal storms to erode beaches, inundate land, and damage structures; more frequent and extreme heat waves; more frequent and greater concentrations of smog; and

WHEREAS, on February 16, 2005, the Kyoto Protocol, an international agreement to address climate disruption, went into effect in the 141 countries that have ratified it to date; 38 of those countries are now legally required to reduce greenhouse gas emissions on average 5.2 percent below 1990 levels by 2012; and

WHEREAS, the United States of America, with less than five percent of the world's population, is responsible for producing approximately 25 percent of the world's global warming pollutants; and WHEREAS, the Kyoto Protocol emissions reduction target for the U.S. would have been 7 percent below 1990 levels by 2012; and

WHEREAS, many leading US companies that have adopted greenhouse gas reduction programs to demonstrate corporate social responsibility have also publicly expressed preference for the US to adopt precise and mandatory emissions targets and timetables as a means by which to remain competitive in the international marketplace, to mitigate financial risk and to promote sound investment decisions; and

WHEREAS, state and local governments throughout the United States are adopting emission reduction targets and programs and that this leadership is bipartisan, coming from Republican and Democratic governors and mayors alike; and

WHEREAS, many cities throughout the nation, both large and small, are reducing global warming pollutants through programs that provide economic and quality of life benefits such as reduced energy bills, green space preservation, air quality improvements, reduced traffic congestion, improved transportation choices, and economic development and job creation through energy conservation and new energy technologies; and

WHEREAS, mayors from around the nation have signed the U.S. Mayors Climate Protection Agreement which, as amended at the 73rd Annual U.S. Conference of Mayors meeting, reads:

The U.S. Mayors Climate Protection Agreement

A. We urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012, including efforts to: reduce the United States' dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;

We urge the U.S. Congress to pass bipartisan Β. greenhouse gas reduction legislation that includes 1) clear timetables and emissions limits and 2) a flexible, market-based system of tradable allowances among emitting industries; and С. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities such as: 1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan. 2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities; 3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit; 4. Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology; 5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money; 6. Purchase only Energy Star equipment and appliances for City use; 7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system; 8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel; 9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production; 10. Increase recycling rates in City operations and in the community; 11. Maintain healthy urban forests; promote tree

planting to increase shading and to absorb CO2; and 12.Help educate the public, schools, other jurisdictions, professional associations,

business and industry about reducing global warming pollution.

NOW, THEREFORE, BE IT RESOLVED that The U.S. Conference of Mayors endorses the U.S. Mayors Climate Protection Agreement as amended by the 73rd annual U.S. Conference of Mayors meeting and urges mayors from around the nation to join this effort.

BE IT FURTHER RESOLVED, The U.S. Conference of Mayors will work in conjunction with ICLEI Local Governments for Sustainability and other appropriate organizations to track progress and implementation of the U.S. Mayors Climate Protection Agreement as amended by the 73rd annual U.S. Conference of Mayors meeting.