Forestry Outcome Justification

Vital Habitats Goal: Restore, enhance, and protect a network of land and water habitats to support priority species and to afford other public benefits, including water quality, recreational uses and scenic value across the watershed.

***Forest Outcome*:** 1) Restore 900 miles per year of **riparian forest buffer** and conserve buffers until at least 70% of riparian areas are forested, and 2) **Expand tree canopy** by 2,400 acres in developed areas of the watershed by 2025.

Riparian forest buffers

Current Condition: Miles of riparian forest buffer restored in 2012 = 284. Miles restored in 10 year period (from 2001-2010) = 6,526.

Supporting Details

1. Why is this outcome important?
   Riparian forest buffers are one of the practices most relied upon in Phase II WIPs, and provide multiple benefits in addition to water quality.
2. Generally, how was the outcome derived?
   In the 2007 Forest Conservation Directive, the states agreed to 900 miles/year of restored forest buffer watershed-wide. Seventy percent coverage of forest is the low threshold for a healthy watershed in our region.
   In the development of the new Bay Agreement, the Forestry Workgroup considered modifying this goal that has been out of reach for a number of years now. However, with the cumulative WIP target for this BMP being significantly more than 900 miles, and that there is funding on the table through CREP to put buffers in the ground, there were no recommendations to change this goal first established in 2007.
3. Which partners (state, federal agencies, goal teams, and committees) were involved in creating this outcome?
   The Executive Council signed the 2007 Directive—all Bay states, DC, Chesapeake Bay Commission, Secretary of Agriculture, and EPA Administrator signed the Directive.
4. Which partners (state, federal agencies, other GITs) need to be involved to achieve the outcome?
   a) The following federal agencies are primary: Farm Services Agency, Natural Resources Conservation Service, US Forest Service, and EPA.
   b) Goal Teams 2 (Habitat) and 3 (Water Quality) are essential to promote and work through issues associated with this outcome.
   c) All states need to be involved. DC is less important for this goal because of the paucity of agriculture land there.
5. What are major factors influencing ability to achieve outcome?

New Farm Bill and re-issuance of CREP, expiring contracts need to be re-enrolled or risk being farmed again, price of commodity crops still high, technical assistance availability is limited, need for improved maintenance on existing plantings, etc.

6. What is the basis for the target?
   The 900 mile/year is a reach goal that the Partnership decided was both possible and necessary for water quality. The Forestry Workgroup has closely tracked this goal for 17 years. In some of the early years, while reported progress was high (1,100 miles in 2002), many of these plantings failed for lack of proper site prep and maintenance and needed to be redone. More work is needed to do outreach and demonstrate to other landowners how we have learned from these past mistakes.
7. What management strategies will ensure the outcome is met?
   Difficult to convince some landowners, especially now that farming pays, but it would be good to have a concerted emphasis on this practice as a priority for environmental incentive programs.
8. What data will be used to measure progress?
   --USDA databases shared with CBPO
   --State reporting to NEIEN
   --State reporting through Forestry Workgroup

Expand Tree Canopy on developed land by 2,400 acres by 2025

Current Condition: Number of communities with goals set (2004-2013) = 45.

Number of communities with canopy assessments complete = 78.

Federally-funded state programs to expand urban and community forest practices have existed in all the Chesapeake Bay state for about 20 years. The Chesapeake Bay Program has had a goal to expand urban tree canopy since 2003.

Supporting Details

1. Why is this outcome important?
   Increasing the tree cover in communities is one of the most sustainable and cost-effective practices to improve both society and the environment. These benefits include, but are not limited to enhancing:
   - **Water Quality**— Trees protect drinking water, reduce nutrients and sediments, reduce stormwater, and reduce flooding.
   - **Public health** -- By lowering city temperatures and removing pollutants from the air, trees can reduce the risk to residents of developing a number of health problems including heart and lung disease and asthma. Based on studies of the costs of pollution to society such as health care, the existing tree cover saves Washington DC nearly $51 million annually. [i]
   - **Air Quality** - -Trees save Baltimore City over $2 million/year by mitigating ozone, particulate matter and other pollutants (this figure does not include the many public health benefits).
   - **Energy Savings—**Trees that shade buildings can save 30% on air conditioning costs.

- **Community Reinvestment–** Studies show that urban trees increase property values, encourage more shopping, and contribute to overall satisfaction within a neighborhood.

2. Generally, how was the outcome derived?
   In the 2007 Forest Conservation Directive, the states agreed to have 120 communities increase their tree canopy by 2020. This new outcome will track acres of expansion because that better reflects changes on the ground that are most beneficial to the Bay. The process of developing a new goal was outlined and agreed to by the Forestry Workgroup. A small group in each state used indicators of past progress, trends, and need (indicated by e.g., acreage of developed land in their state, urban tree canopy assessments done to date, and WIP targets for expanded tree canopy) to estimate their portion of the goal to the Forestry Workgroup.
3. Which partners (state, federal agencies, goal teams, and committees) were involved in creating this outcome?
   The Forestry Workgroup and the Habitat Goal Team helped guide the development of the goal. Urban foresters in all states and DC were involved.
4. Which partners (state, federal agencies, other GITs) need to be involved to achieve the outcome?
   All states will contribute to the goal. Federal facilities in developed areas are also able to participate. Goal Teams 2 (Habitat) and 3 (Water Quality) are essential to promote, work on issues, and improve tracking of this outcome.
5. What are major factors influencing ability to achieve outcome?

   a) Education and outreach to local governments-- For every dollar spent on urban trees, the investment is returned 3- fold. There is still reluctance on the part of some communities to invest in tree canopy.
   b) Tracking—Some jurisdictions have been reporting acres of this BMP to the Bay Model in recent years, however tracking state-wide increase in # of acres (instead of # of canopy assessments and goals set, for example) is a relatively new concept to urban forestry professionals at the state and federal level. Many localities, NGO's, and neighborhood groups are doing tree plantings, but it can be a challenge to account for these dispersed and voluntary projects. However, since the number of acres is what is reported to the Bay Model, an improved process is needed anyway to account for voluntary efforts and to comply with pending verification protocols (especially the need to account for tree canopy loss).
   c) Maintenance and tree replacement -- Urban areas can be hostile to tree establishment so tree maintenance is essential during the early years. Mortality can be high, and those trees need to be replaced. Funding for these programs can be limited even though the return on investment is usually higher than with other urban BMPs.

6. What is the basis for the target?
   The states agreed that 2,400 acres by 2025 represented a reasonable goal compared to previous goals that were considered and more reasonable than the sum total of number

of acres of this practice in the WIPs (19,652 acres by 2025). Still, there are significant challenges to establishing this much tree canopy as mentioned above.

7. What management strategies will ensure the outcome is met?
   Package new tools and tracking techniques and hold a training session in the next year for state leads and others on this BMP.
   FS continues to support urban and community forestry programs, encouraging tracking of similar indicator (i.e., expanded acres of tree canopy).
   Develop partnerships at the local level of tree planting and tree care ambassadors.
   Develop more programmatic grant proposals for expanded tree canopy and guide them to various funding sources (e.g., CBT, NFWF, etc).
8. What data will be used to measure progress?
   a) Acres of tree cover lost and gained (from localities)
   b) Satellite monitoring of extent of tree canopy