

# Draft Sugarloaf Treasured Landscape Management Plan



Planning Commission Workshop #5

December 8, 2021

### Plan Goals (pg. 4):

- **Protect and enhance the Sugarloaf Area's natural resources and environmental assets, including its forests, waters, biodiversity, and wildlife habitats.**
- **Strengthen the distinct place-based identity of the Sugarloaf Area through the stewardship of its scenic and rural character, and its agricultural and cultural resources.**
- **Foster a resilient human ecology through the mitigation of, and adaptation to, climate change.**

### Vision Statement (pg. 4):

***A unique geologic landform in Maryland, Sugarloaf Mountain is a defining element of Frederick County's treasured scenic and rural landscape. The mountain and the area surrounding it possess a sublime beauty and significant biodiversity, where a high-quality environment is maintained. Forestlands, aquatic resources, wildlife habitat, inspiring vistas, and historic resources are valued and protected. Land uses are sensitive to both the natural environment and rural character of the area. Stewardship of the area's natural assets and cultural resources ensures healthy, resilient, and economically productive lands for current and future generations. As we face climate change challenges, Sugarloaf Mountain and the surrounding landscape provide ecosystem benefits to the residents of both Frederick County and the wider region, enhancing the sustainability of our shared environment.***

## **Chapter 6 Watershed Water Quality**

- **Maryland's Designated Use Classes for Surface Waters**
- **Stream Habitat**
- **Water Quality**
- **Biological Condition**
- **Impervious Surface**
- **Monitoring Water Quality Impacts from Impervious Cover & Land Use**
- **Coldwater Biological Resources in the Sugarloaf Planning Area**
- **Brook Trout Watersheds – Bear Branch and Furnace Branch**
- **Urbana Branch Watershed**

### **Side Bar Items:**

- **Maryland Biological Stream Survey**
- **Maryland's Stream Waders Program**
- **Stream Categories**
- **Headwater Streams**

## **Chapter Review**

- **Content, message, text**
- **Policies**
- **Initiatives**
- **Mapping**
- **Revisions/edits**

## Chapter 6 Policies and Initiatives

### Chapter 6 Watershed Water Quality

- Maryland's Designated Use Classes for Surface Waters
- Stream Habitat
- Water Quality
- Biological Condition
- Impervious Surface
- Monitoring Water Quality Impacts from Impervious Cover & Land Use
- Coldwater Biological Resources in the Sugarloaf Planning Area
- Brook Trout Watersheds – Bear Branch and Furnace Branch
- Urbana Branch Watershed

#### Side Bar Items:

- Maryland Biological Stream Survey
- Maryland's Stream Waders Program
- Stream Categories
- Headwater Streams

**Policy 6.1** Foster increased awareness and appreciation of environmental resources in the Sugarloaf Planning Area and their relationship to man-made systems, and support management actions to sustain and protect resource function, resilience, and quality.

**Policy 6.2** Enhance biological, physical, and chemical monitoring of streams, including evaluation of physical impediments that block brook trout movement and acute 'hot spots' with degraded in-stream conditions that imperil survival of coldwater aquatic communities.

**Policy 6.3** Minimize parallel streamside roads and road crossings of stream in all future planning, subdivision and site plan approvals, and construction designs in the Sugarloaf Planning Area.

## Chapter 6 Policies and Initiatives

### Chapter 6 Watershed Water Quality

- Maryland's Designated Use Classes for Surface Waters
- Stream Habitat
- Water Quality
- Biological Condition
- Impervious Surface
- Monitoring Water Quality Impacts from Impervious Cover & Land Use
- Coldwater Biological Resources in the Sugarloaf Planning Area
- Brook Trout Watersheds – Bear Branch and Furnace Branch
- Urbana Branch Watershed

#### Side Bar Items:

- Maryland Biological Stream Survey
- Maryland's Stream Waders Program
- Stream Categories
- Headwater Streams

**Initiative 6A** Establish non-residential and non-agricultural building size thresholds in the Sugarloaf Planning Area to reduce impervious surfaces, stormwater runoff, and degradation of aquatic resources.

**Policy 6.4** Support and adequately fund watershed restoration initiatives such as stormwater management system upgrades and retrofits, infrastructure repair, reforestation, and stream restoration projects that minimize riparian vegetation removal in the Sugarloaf Planning Area

**Policy 6.5** Maintain high quality watershed conditions to sustain coldwater biological communities.

**Initiative 6B** Engage the Division of Public Works' Highway Operations Division in a critical examination of the need and use of road salt within the Sugarloaf Resource Watersheds of Concern in order to protect high quality waters that support brook trout and coldwater aquatic organisms from the threat of elevated chloride levels.

## Chapter 6 Policies and Initiatives

### Chapter 6 Watershed Water Quality

- Maryland's Designated Use Classes for Surface Waters
- Stream Habitat
- Water Quality
- Biological Condition
- Impervious Surface
- Monitoring Water Quality Impacts from Impervious Cover & Land Use
- Coldwater Biological Resources in the Sugarloaf Planning Area
- Brook Trout Watersheds – Bear Branch and Furnace Branch
- Urbana Branch Watershed

#### Side Bar Items:

- Maryland Biological Stream Survey
- Maryland's Stream Waders Program
- Stream Categories
- Headwater Streams

**Policy 6.6** Protect sensitive aquatic resources, including brook trout populations, in Bear Branch Watershed.

**Policy 6.7** Support efforts to achieve Tier III Use Class Status for additional streams in the Sugarloaf Planning Area and ensure that the unique high quality features of these streams are maintained.

**Policy 6.8** Improve and restore wildlife habitat and biologic diversity, including brook trout populations, in the Furnace Branch Watershed.

**Initiative 6C** Continue engagement with and support of the Eastern Brook Trout Joint Venture, a unique partnership between state and federal agencies, regional and local governments, businesses, conservation organizations, academia, scientific societies, and private citizens working toward protecting, restoring, and enhancing brook trout populations and their habitats across their native range.

## Chapter 6 Policies and Initiatives

### Chapter 6 Watershed Water Quality

- Maryland's Designated Use Classes for Surface Waters
- Stream Habitat
- Water Quality
- Biological Condition
- Impervious Surface
- Monitoring Water Quality Impacts from Impervious Cover & Land Use
- Coldwater Biological Resources in the Sugarloaf Planning Area
- Brook Trout Watersheds – Bear Branch and Furnace Branch
- Urbana Branch Watershed

#### Side Bar Items:

- Maryland Biological Stream Survey
- Maryland's Stream Waders Program
- Stream Categories
- Headwater Streams

**Policy 6.9** Focus existing incentive programs in the Urbana Branch and North Branch Watersheds to expand and increase the amount of forest cover to address environmental and climate resilience and aid in water quality protection.

**Policy 6.10** Critically examine quantities of groundwater requested for future withdrawals by large-scale commercial and institutional uses in order to maintain springs and seeps, and to ensure stream base flows needed for sensitive cold-water aquatic biota and protection of nearby private residential wells.

## Chapter 6 Policies and Initiatives

### Chapter 6 Watershed Water Quality

- Maryland's Designated Use Classes for Surface Waters
- Stream Habitat
- Water Quality
- Biological Condition
- Impervious Surface
- Monitoring Water Quality Impacts from Impervious Cover & Land Use
- Coldwater Biological Resources in the Sugarloaf Planning Area
- Brook Trout Watersheds – Bear Branch and Furnace Branch
- Urbana Branch Watershed

#### Side Bar Items:

- Maryland Biological Stream Survey
- Maryland's Stream Waders Program
- Stream Categories
- Headwater Streams

**Initiative 6D** Preserve and enhance environmental functions, such as flood control, temperature modulation, and downstream water quality protection, by enhancing the buffering of aquatic systems, including headwater areas and mapped natural flow and drainage paths.

**Initiative 6E** Establish a physical, chemical, and biological water quality monitoring program from the Urbana Branch Watershed to assess current conditions and evaluate the effects of land use change on stream quality.

**Policy 6.11** Support conservation practices on all agricultural lands, including livestock exclusion from streams, wetland protection and enhancement, and regenerative agricultural practices to sequester carbon and increase soil and water health.



## **Chapter 7 Forestlands, Green Infrastructure, and Biodiversity**

- **Maryland's 2020 Forest Action Plan**
- **Programmatic Opportunities for Reforestation**
- **Biodiversity**
- **Ecologically Significant Areas**

### **Side Bar Items:**

- **Forest**
- **Wildland Fire**

## Chapter 7 Forestlands, Green Infrastructure, and Biodiversity

- Maryland's 2020 Forest Action Plan
- Programmatic Opportunities for Reforestation
- Biodiversity
- Ecologically Significant Areas

### Side Bar Items:

- Forest
- Wildland Fire

## Chapter 7 Policies and Initiatives

**Policy 7.1** Promote the creation of Forest Management Plans and Forest Stewardship Plans that address increasing species and landscape diversity over time, including the extent and quality of older forest and early successional habitat. Such plans should include methods to control invasive pests, destructive insects, and diseases to prevent widespread forest mortality and loss of native forest types.

**Policy 7.2** Ensure timber harvest activities in the Sugarloaf Planning Area achieve: enhanced protection of all waterways and drainages, minimal risk of stream sedimentation, protection of forests during critical breeding seasons for FIDS, and no degradation or negative impacts to forest quality, resilience, and wildlife habitat.

**Policy 7.3** Support efforts of landowners and organizations to improve deer herd management to reduce deer browse of native trees.

## Chapter 7 Policies and Initiatives

### Chapter 7 Forestlands, Green Infrastructure, and Biodiversity

- Maryland's 2020 Forest Action Plan
- Programmatic Opportunities for Reforestation
- Biodiversity
- Ecologically Significant Areas

#### Side Bar Items:

- Forest
- Wildland Fire

**Initiative 7A** Initiate the development and creation of a functional Green Infrastructure Plan for the County that prioritizes areas for forest restoration and conservation across ownerships to increase natural landscape continuity and reduce forest fragmentation.

**Policy 7.4** Retain existing forestlands, promote sound forestry management, and expand tree planting, including riparian forest buffers and the conversion of lawn to forest in the Sugarloaf Planning Area to help achieve climate change resilience.

**Policy 7.5** Collaborate with stakeholders, agencies, and organizations to use forests and trees to improve watershed conditions, including the conservation of forests critical for protecting high quality waters.

**Policy 7.6** Emphasize forest connectivity when Forest Resource Ordinance easements are proposed during the land development process.

## Chapter 7 Policies and Initiatives

### Chapter 7 Forestlands, Green Infrastructure, and Biodiversity

- Maryland's 2020 Forest Action Plan
- Programmatic Opportunities for Reforestation
- Biodiversity
- Ecologically Significant Areas

#### Side Bar Items:

- Forest
- Wildland Fire

**Initiative 7B** Establish the Sugarloaf Area Forest Initiative, modeled after the Linganore Watershed Forest Program, to utilize the County's Forest Resource Ordinance mitigation funds to plant new forest on private lands.

**Initiative 7C** Through partnerships with natural resource professionals, provide technical and financial assistance to help private landowners practice sustainable forest resource management and to transition lawn to natural areas.

**Policy 7.7** Support education and outreach efforts of the Maryland DNR Firewise Program to promote fire awareness and prevention in the wildland-urban interface in the Sugarloaf Planning Area.

## Chapter 7 Policies and Initiatives

### Chapter 7 Forestlands, Green Infrastructure, and Biodiversity

- Maryland's 2020 Forest Action Plan
- Programmatic Opportunities for Reforestation
- Biodiversity
- Ecologically Significant Areas

#### Side Bar Items:

- Forest
- Wildland Fire

**Initiative 7D** Ensure existing capacities (e.g., plans, personnel, equipment) of local fire departments and emergency response agencies are sufficiently adequate for effective wildfire response and suppression.

**Initiative 7E** Engage the services of the Maryland DNR Forest Service to prepare Community Wildfire Protection Plans for eligible areas in the Sugarloaf Planning Area.

**Policy 7.8** Foster increased awareness and appreciation of environmental resources and their relationship to man-made systems, and support for management action to sustain and protect resource function and quality.

## Chapter 7 Policies and Initiatives

### Chapter 7 Forestlands, Green Infrastructure, and Biodiversity

- Maryland's 2020 Forest Action Plan
- Programmatic Opportunities for Reforestation
- Biodiversity
- Ecologically Significant Areas

#### Side Bar Items:

- Forest
- Wildland Fire

**Initiative 7F** Collaborate with conservation groups, governmental entities, and willing landowners to establish a “Forest Management for Wildlife” demonstration area to showcase ecological forestry techniques to improve desired wildlife habitats, from managing towards mature forest conditions to designing early successional habitat to benefit declining shrubland species, such as American woodcock, bobwhite quail, and ruffed grouse.

**Initiative 7G** To improve public safety and reduce the costs of property insurance for residents and businesses within the Planning Area, establish a network of water storage tanks to be owned and maintained by the County for rural fire suppression. Once piloted in the Sugarloaf Area, this initiative should be expanded to other rural parts of the County.

## **Chapter 8 Climate Change**

- **Local and State Action**
- **Agriculture and Carbon Sequestration**
- **Forests and Carbon Sequestration**
- **Local Impacts and Solutions**

### **Side Bar items:**

- **The Carbon Cycle**
- **Paris Climate Agreement**

## Chapter 8 Policies and Initiatives

### Chapter 8 Climate Change

- Local and State Action
- Agriculture and Carbon Sequestration
- Forests and Carbon Sequestration
- Local Impacts and Solutions

#### Side Bar items:

- The Carbon Cycle
- Paris Climate Agreement

**Policy 8.1** Factor climate change into all land use and planning initiatives and processes to achieve a natural and built environment that is highly resilient and adaptive.

**Initiative 8A** Support County efforts to develop policies and plans that address climate change and sustainability in a coordinated and comprehensive manner.

**Policy 8.2** Support alternative energy production and storage systems, while carefully evaluating their impact on forestlands, viewsheds, and the transportation network in the Sugarloaf Planning Area.

**Policy 8.3** Support sustainable, regenerative agricultural practices in the Sugarloaf Planning Area that enhance soil productivity and carbon sequestration, and protect water quality, thus providing overall greater resilience to climate change.



## Chapter 8 Policies and Initiatives

### Chapter 8 Climate Change

- Local and State Action
- Agriculture and Carbon Sequestration
- Forests and Carbon Sequestration
- Local Impacts and Solutions

#### Side Bar items:

- The Carbon Cycle
- Paris Climate Agreement

**Initiative 8B** Explore the creation of a new County programmatic initiative to engage willing landowners to replace turf grass with conservation landscaping to: reduce greenhouse gas emission (from less mowing), enhance pollinator habitat, and increase vegetative diversity.

**Initiative 8C** Establish, fund, and showcase a pilot program that engages a willing land owner/farm operator in the Sugarloaf Planning Area to convert or enhance an existing agricultural operation to a system that incorporates more regenerative practices and carbon sequestration.

**Initiative 8D** Partner with the USDA, MDA, the Frederick Soil Conservation District and other experts to supply technical design, installation, and adoption assistance to implement HB 687/SB 597, the Agricultural Cost Share Program-Fixed Natural Filter Practices in the Sugarloaf Planning Area.

## Chapter 8 Policies and Initiatives

### Chapter 8 Climate Change

- Local and State Action
- Agriculture and Carbon Sequestration
- Forests and Carbon Sequestration
- Local Impacts and Solutions

#### Side Bar items:

- The Carbon Cycle
- Paris Climate Agreement

**Policy 8.4** Preserve vast forestlands in the Sugarloaf Planning Area that comprise an “ecological sanctuary” and acknowledge their importance in providing clean water, sequestering carbon, and mitigating climate change.

**Policy 8.5** All future repairs and upgrades of stream culverts in the Sugarloaf Planning Area should be designed to: ensure unimpeded upstream and downstream movement of aquatic organisms and other wildlife; minimize stream scour and erosion; and accommodate more intense storms and frequent flooding events.

**Initiative 8E** Explore options with the Department of Public Works and the Office of Sustainability and Environmental Resources to address the compromised stream bank stabilization structure and associated stream channel erosion located along a tributary to Little Bennett Creek, adjacent to Sugarloaf Mountain Road.

## Chapter 8 Climate Change

- Local and State Action
- Agriculture and Carbon Sequestration
- Forests and Carbon Sequestration
- Local Impacts and Solutions

### Side Bar items:

- The Carbon Cycle
- Paris Climate Agreement

## Chapter 8 Policies and Initiatives

**Policy 8.6** Expand the capacity of the Sugarloaf Planning Area to provide essential contributions to the County's efforts to reduce, mitigate, and adapt to climate change.

**Policy 8.7** Endorse and support a variety of "green" principles and technologies and climate-sensitive methods in building and site design (e.g., energy efficient components and accessories, passive solar design) to help mitigate and adapt to climate change.

**Initiative 8F** Accelerate the promotion of the Commercial Property Assessed Clean Energy Loan (C-PACE) Program for investment in clean energy, conservation, and carbon drawdown activities, such as energy efficiency, renewable energy, water conservation projects, green infrastructure, grid resiliency, and energy management techniques.

**Policy 8.8** Reduce greenhouse gas emissions by limiting the growth of high vehicle trip-generating land uses in the Sugarloaf Planning Area.