



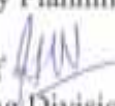

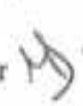
MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

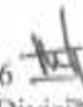
MCPB
Item # 9
3/13/2008

MEMORANDUM

DATE: March 7, 2008

TO: Montgomery County Planning Board

VIA: Gwen Wright, Chief 
Countywide Planning Division
Jorge A. Valladares, P.E., Chief 
Environmental Planning
Mary Dolan, Master Planner/Supervisor 
Environmental Planning

FROM: Michael Zamore, Senior Planner, (301) 495-2106 
Environmental Planning, Countywide Planning Division

SUBJECT: Briefing: Update on the Progress and Purpose of the Green
Infrastructure Functional Master Plan

RECOMMENDATION: Information and Discussion

Description/Scope of the Plan

This plan will identify and evaluate sensitive and important environmental features throughout Montgomery County and ways to connect them into a comprehensive system. The Plan will develop strategies and recommendations to make this vision a reality and will map interconnected natural areas of countywide significance. The Plan will also rank the relative importance of natural resources to help direct conservation, mitigation, restoration, and enhancement decisions. Priorities will be established to assist development review, master planning, park acquisition, and budgeting.

Benefits to the County:

- Establish environmental policy choices for the Planning Board and implement the environmental objectives and strategies of the 1993 General Plan Refinement
- Support the development pattern outlined in the General Plan and by Smart Growth initiatives
- Implement recommendations of the latest approved Land Preservation, Parks, and Recreation (LPPR) Plan

- Streamline the preparation of the Park, Recreation, and Open Space (PROS) Strategic Plan, and complement the Legacy Open Space (LOS) program
- Provide a broader understanding of the county's natural areas and how to achieve a functional green space network
- Streamline the review and mitigation process for public and private development projects to improve its environmental effectiveness

Relationship to Other Plans and Programs

The Green Infrastructure Functional Master Plan will provide an umbrella for area and sector master plans, as well as State and County environmental plans and programs. The plan helps achieve regional Air Quality Plan objectives and complements regional efforts to combat poor air quality. The Plan will complement the Water Resources Functional Master Plan by prioritizing natural area enhancement opportunities. This will help address specific water quality improvement needs identified in the Water Resources Plan. Increasing the function, quality and quantity of green infrastructure, reduces pollutant loading and enhances water quality. By helping to lower nutrient loads it will also help meet Chesapeake Bay commitments which in turn, improves our eligibility for State open space funds.

The State maintains and periodically updates the *Guidelines* for State and Local Land Preservation, Parks, and Recreation (LPPR) Planning. A key goal of the LPPR relates directly to the importance of comprehensive planning for green infrastructure. By including the development of a Countywide Green Infrastructure Plan in its recently approved LPPR Plan, M-NCPPC continues to be eligible for State funding for important natural resource conservation work. Finally, the Plan will complement the Legacy Open Space Program by identifying areas that should be priorities for acquisition, and its policies and recommendations will also guide revisions and amendments to local master plans and set important environmental policy choices for the Planning Board.

Progress to Date

Public Outreach

We have used interagency, public and private participation in the green infrastructure planning process. Three strong working groups composed of Environmental Planning, Park Planning and Stewardship, Research and Technology staff, and other experts, have provided invaluable input. Six Stakeholder Focus Groups were convened to cover a wide cross section of the community: Agriculture and Forestry, Building Industry and Chambers of Commerce, Environmental, Interagency and Public Land Managers, Municipalities and Large Civic Organizations, and Natural Areas Recreational Users. Some of the key ideas that we heard at the focus group meetings are:

- Green infrastructure criteria should be science-based
- Close gaps between greenways
- Developers want settled expectations
- Consider adjoining jurisdictions
- Consider significant isolated forest stands
- Create or enhance green infrastructure connections between watersheds

- Basic green infrastructure mapping criteria should be different in highly developed areas
- More green infrastructure will help enhance groundwater recharge
- Headwaters areas are critical for protection
- Look at opportunities to increase the size of natural areas.

The ideas from all six focus groups are summarized in Attachment 1. We have also used video and print media to bring out the message.

Data Collection and Analysis

We identified relevant (GIS) data layers of the county's natural resources, analyzed their level of detail and accuracy, and merged appropriate information into one sensitive features layer. These layers included forests, hydric and erodible soils, stream quality, quality, wetlands, parks, and floodplains. Our scientific research and literature review have identified minimum green infrastructure criteria that we will use in developing the mapping scenarios.

We have prepared first cut mapping applying the green infrastructure mapping criteria to create various scenarios. We will show examples of mapping scenarios at the briefing. These scenarios will be further refined before the public forum where community and stakeholder comments will help us determine the optimal criteria. The scenarios are based on different assumptions about the corridor width, length of gaps between green areas and size of isolated forest areas:

	Minimum Width	Maximum Gap	Minimum Size
Alternative 1	200 feet	600 feet	50 acres
Alternative 2	200 feet	600 feet	50 acres
Outside Urban Ring			
Inside Urban Ring	0 feet	600 feet	>1 acre interior forest
Alternative 3	200 feet	600 feet	50 acres
Outside Urban Ring			
Inside Urban Ring	100 feet	600 feet	25 acres with >3 acres interior forest

Next Steps

We will continue to use interagency, public and private participation to develop the Plan. We will also continue to get valuable input from our Stakeholder Focus Groups so that the planning process remains transparent and consumer-driven. New strategies will be developed to target schools and young people to enhance environmental education. We anticipate developing and presenting the draft Green Infrastructure recommendations for discussion with the focus groups by the end of 2008. We anticipate taking the draft Plan to the Planning Board for authorization to print and distribute for comment by June 2009. We will continue to brief the Planning Board at critical stages in the plan process.

Specific Tasks/Products for FY09

- Prepare draft green infrastructure recommendations (Summer/Fall 2008)
- Conduct public outreach for draft recommendations (Winter-Spring 2009)
- Prepare staff draft master plan (Summer 2009)

Attachment 1 - Summary of Focus Group Comments
Attachment 2 - Detailed Schedule of Milestones
Attachment 3 - Master Plan Schedule Chart
Attachment 4 - Proposed Program Element FY09

ATTACHMENT 1

Key Input From Focus Groups for GI Mapping Scenario Development

Environmental Focus Group

- 600 yard corridor width – considered optimal in some studies, but not a minimum
- Consider narrower corridors if 600 yards is not possible
- Criteria should be variable based on location in the County
 - Down-county/up-county
 - Developed/undeveloped
- Criteria should be science-based, do a literature review, minimum functionality is important in setting minimum size criteria
- Green Infrastructure is important in both rural and urban areas—however, the issues, needs, and strategies are different.
- Look at ways to consider utility ROWs in the Plan. Some are already maintained through selective herbicides as meadows or scrub/shrub, and have habitat value. Some could be converted to this type of management.
- Meet with Pepco to discuss their utility corridors
- Need to close gaps between greenways – e.g. Potomac to Patuxent--via Seneca Creek

ICC – currently seems to have insufficient passages for animals – we should not miss this opportunity

- If a natural area cannot be connected with others it can still be a significant green infrastructure resource
 - Significant isolated natural areas should be considered
 - Case by case review, prioritize
 - Future connectivity may be possible in some cases

MAGIC is trying to develop statewide and national corridors. Look at tie-ins with their efforts.

Urban development should have green space amenities.

Building Industry and Chambers of Commerce Focus Group

Developers want settled expectations—things need to be clear and predictable

Maps should show growth areas, roads, and priority funding areas

Opportunity to identify “shades of green”: some areas might be more appropriate for smaller buffer or more dense development; some areas might be more appropriate for more green preservation

Green space needs to be a part of urban areas as well

Interagency and Public Land Managers Focus Group

Connections to the Potomac and Patuxent important

Identify *Rural Legacy* properties

Should make connections to Sugarloaf Mountain

Monocacy River is important

Look at GI connections with D.C.

Green Infrastructure is not just a County issue – good to include adjacent jurisdictions

Developed areas are a problem – especially how to handle redevelopment and infill situations

1. Do you have any suggestions for what general principles should be considered in setting minimum green corridor widths and node sizes, and maximum gaps?

Prince George’s County M-NCPPC:

- a. In areas where development is desired – 50ft. minimum corridor width. In areas rural in nature – 200ft. minimum corridor width

DNR:

Look at continuity, connectivity and unique/sensitive habitats & RTE’s. Minimum criteria should be science-based.

2. Do you have any suggestions for what types of areas should be included in the green infrastructure network?

Prince George’s County M-NCPPC:

- Areas that protect/restore/enhance water quality
- Areas that protect/restore/enhance habitat

- Also consider water quantity/quality – stream corridor restoration

DNR:

All state-identified Green Infrastructure elements and connections

Agriculture and Forestry Focus Group

Water quality is an important issue

Need recharge to groundwater - Wells do not provide enough water

Municipalities and Large Civic Organizations Focus Group

Connectivity of natural areas is key

Connectivity between existing natural resources and urban/suburban areas is important

- People value forests, streams, and meadows – people like to get close to nature and appreciate paths that provide connectivity to it.
 - In terms of green infrastructure, urban and rural areas are both important.
 - Headwaters seem to make the most difference--once streams get down-county it may be too late to do much to improve water quality. It seems best to give priority to protecting headwater areas.
 - Having places to watch birds, butterflies and other animals is important
- The GI Plan should consider the overall context with adjoining jurisdictions.
 - The Plan should consider Legacy Open Space (LOS), and the Agricultural Reserve.

Priorities on making connections, even in urban areas connections could be developed.

Natural Areas Recreational Users Focus Group

- Connectivity is essential to all natural area recreational activities
- Connectivity of natural areas is important for the health of people and the land.
- It is important to be able to get to natural areas even from the most congested areas.
- Even small connections can be important
- Watershed protection is a key element.
- Think strategically. Natural hub size may be increased in certain areas.

Once Seneca is connected, it will connect an enormous network

Natural area fragmentation is a problem– need contiguous natural areas to protect headwaters – be strategic in doing this.

There needs to be as much forest around trails as possible.

Maintaining and enlarging park and other natural areas to increase “internal forest” and to increase connectivity.

1. Do you have any suggestions for what general principles should be considered in setting minimum green corridor widths and node sizes, and maximum gaps? (In other words, what should the size criteria be based on?)

- Minimum size should offer a real visible/audible buffer from roads and development. Obviously, this would change from summer to winter.
- Gaps should be no larger than what leaves an obvious “island-hopping” connectivity.

1. Do you have any suggestions for what types of areas should be included in the green infrastructure network? (e.g. What types of areas are of Countywide Significance?)

- Headwaters areas: meadows, basins and narrow ravines all the way to the divides if at all possible; if not, at least include a forest buffer.
- Wetlands, including seasonal ponds and seasonal wet meadows
- Unique plant communities or geological areas (shale barrens, or serpentine areas, etc.)
- Any large undeveloped or reclaimed area. The county will be built out within the next few years. Any land that can be saved is absolutely essential for quality of life recreation, to say nothing of eco-sustainability.

3. Should any areas that cannot be connected to a larger network be included? If so, what kind?

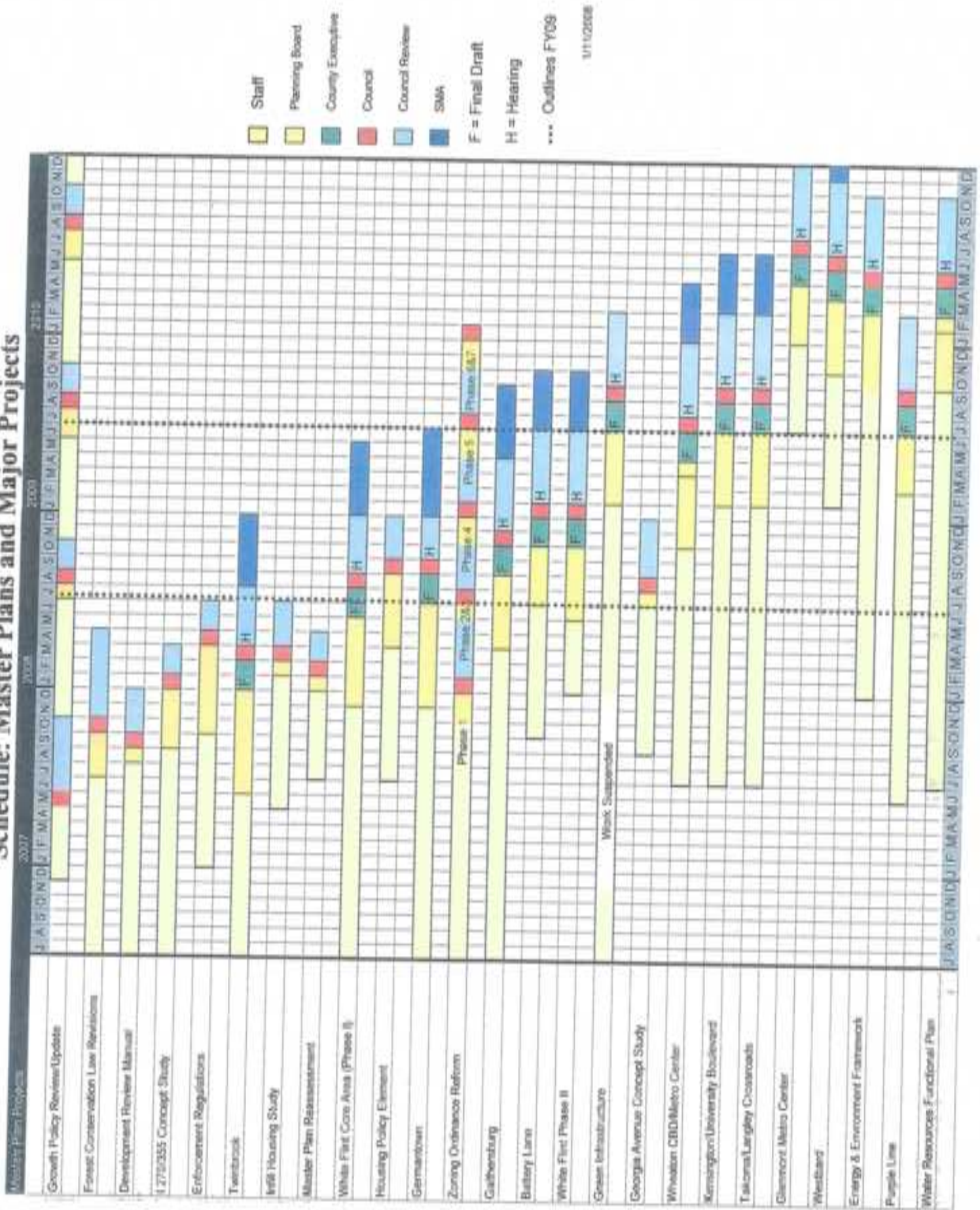
- Non-tidal wetlands of all types
- Pockets of mature forest
- Any area offering an “island-hop” to other pockets or between connected corridors.

ATTACHMENT 2

DRAFT Green Infrastructure Functional Master Plan Plan Preparation Timeline and Milestones, 11/26/07

Preliminary Target Date	Milestone/Event
Dec 2007	Initial Mapping Analysis <ul style="list-style-type: none"> - Prepare Technical Work Plan - Identify any necessary fieldwork - Detail Tasks and Responsibilities
Jan 2008	Reassess Forest Layer Issues <ul style="list-style-type: none"> - Time and resources to correct - Begin correction of layer Begin Preliminary Mapping analysis <ul style="list-style-type: none"> - Prepare for Interactive GIS sessions
Feb - Mar 2008	First Cut Mapping of GI with different criteria based on General Plan refinement of 1993 GIS Mapping Interactive Sessions <ul style="list-style-type: none"> - Select GI mapping approach for scenario development Resume Public Outreach Meetings <ul style="list-style-type: none"> - Determine public outreach strategy for remaining time of plan development - Prepare Public Outreach Work Plan <ul style="list-style-type: none"> - Detail Tasks and Responsibilities
Mar 2008	Prepare Regulated Area GIS Layer Prepare base Natural Resources map
Mar - April 2008	Finish Corrections to Forest Layer Formulate GI Plan Alternative Mapping Scenarios Preparation of Plan GI Alternative Mapping Scenarios Preparation for GI Plan Public Meeting to present scenarios and gather input
May 2008	GI Plan Mapping Scenarios Public Meeting
June 2008	Brief Planning Board on results of the Plan Public Information Meeting
June-Nov 2008	Develop draft GI Plan
Dec 2008	Second Public Meeting to present Preliminary Draft Plan
June 2009	Present Draft Plan to Planning Board/Authorization to print and distribute for comment

Schedule: Master Plans and Major Projects



ATTACHMENT 4

GREEN INFRASTRUCTURE FUNCTIONAL MASTER PLAN

DESCRIPTION/SCOPE

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Lead Division: Countywide Planning

BENEFITS TO THE COUNTY

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- Support the development pattern outlined in the General Plan and by Smart Growth initiatives
- Implement recommendations of the latest approved Land Preservation, Parks, and Recreation (LPPR) Plan
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PERFORMANCE OUTPUTS AND BASELINE INDICATORS

% of milestones completed within target timeframes.

Number of outreach sessions conducted on Functional Plan.

Budgeted Resources:	FY08		FY09	
	WY	\$	WY	\$
Personnel	1.60	\$149,089	1.60	\$169,800
Professional Services				
Publications				
Other Operating Expenses		\$20,667		\$21,800
Chargebacks				
Total		\$169,756		\$191,600
Revenue Source: Administration Fund				