

BOARD OF ALDERMEN

ITEM NO. D(2)

AGENDA ITEM ABSTRACT

MEETING DATE: August 16, 2005

TITLE: Conservation Mapping

DEPARTMENT: PLANNING	PUBLIC HEARING: YES __ NO _ X _
ATTACHMENTS: A. Resolutions B. Draft map of Conservation Areas in the Upper Bolin Creek Watershed	FOR INFORMATION CONTACT: Noah Ranells, 918-7326 Patricia McGuire, 918-7327

PURPOSE

The purpose of this item is to 1) share 'live' geographic information system (GIS) data related to conservation goals in the Town of Carrboro planning jurisdiction and 2) present a ****draft**** map of conservation areas in the upper Bolin Creek watershed.

INFORMATION

Carrboro has long been regarded as an environmental leader among peer and larger municipalities. Periodic review of town policies is critical to ensure that town policies are responsive to the dynamic nature of land use and associated conservation priorities.

Staff has considered the development of a conservation map for the Bolin Creek watershed as requested by the Board of Aldermen on 18 January 2005. This effort also reflects follow-up to agenda items related to the Friends of Bolin Creek report in November 2004 and the Ecosystem Enhancement Program in January 2005.

Background

Geographic information systems can greatly enhance depiction of natural resource and municipal infrastructure information, and subsequently be used to inform future environmental policies and land use planning. GIS technologies are, at their very core, dynamic and changing. We are fortunate to have a multitude of different GIS 'layers' in Carrboro. Depicting all of our primary constraints, secondary constraints, open space, and buffers on a single map that represents the Carrboro planning jurisdiction would result in a map that would not be very 'user friendly'. However, specific town policies that address steep slopes, tree cover, and buffers can be contained in one, two, or three 'layers' and may be graphically represented in a satisfactory manner. Furthermore, our web-based environmental GIS program that is available to the public via the internet can depict environmental data for specific parcels, informing citizens and developers of constraints and other natural resource information.

Staff has prepared a 'live' GIS presentation on conservation information so that 1) various layers can be turned on and off and 2) map scale can be changed by zooming in or out. The goal of this worksession is to provide an opportunity for the Aldermen to 1) gain an initial working understanding of GIS, 2) view GIS depiction of current town policies, and 3) view a draft map of conservation areas in the upper Bolin Creek watershed.

The information provided in GIS greatly informs elected officials, citizens, and town staff of current situations and it is intended to do the same for future scenarios. For example, the conceptual Bolin Creek Park & Preserve, as proposed by the Friends of Bolin Creek, benefited from GIS assessment of existing natural constraints and land use patterns. After receiving the January 2005 staff presentation on the Friends of Bolin Creek report, the Board of Aldermen requested that staff develop a draft map for conservation areas in the upper Bolin Creek watershed.

Conservation Map

The draft map, "Conservation Areas in the Upper Bolin Creek Watershed", that staff developed used the current Town of Carrboro Land Use Ordinance (LUO) policies as its foundation. In addition, additional current land use information related to conservation was considered. Specific information used to develop the map is noted below.

A. Primary Conservation Areas in the Land Use Ordinance

1. Floodplain and stream buffers (LUO 15-265 and 15-268). These regulations provide a contiguous, 'linear', natural resource feature that weaves its way through, and connects the watershed. It is also a very functional feature, especially in headwaters, as it provides for treatment of pollutants and sediment in stormwater runoff and subsurface water flow. It is important to note that the LUO provides a process by which a landowner can provide a survey to ground-truth and propose to the town engineer and other town staff a revision to GIS data that might remove the 'stream' designation and the associated buffer subject to approval by the Board of Aldermen.
2. Hardwoods (LUO 15-198). Although hardwood trees are a primary conservation area, on parcels with more than 40% of the land in primary conservation areas, hardwoods, may be removed to the extent allowed by the ordinance.
3. Steep Slopes (LUO 15-198). Areas with greater than 25% slope are considered a primary conservation area. While there are few areas where this poses a major consideration for land use of a particular parcel, there are selected instances where this is a significant concern for specific properties.

NOTE: The inclusion of steep slopes and stream buffers in the open space requirement is a fairly rigorous standard during the development process. Parcel surveys during the development process provide the most accurate data and the LUO provides a process by which a landowner can propose to the town engineer and other town staff a revision to GIS data that might remove the 'stream' or other primary conservation area designation subject to approval by the Board of Aldermen.

B. Existing Private & Public Conservation Areas

1. The existing town and county parklands, private conservation lands, and town-dedicated open space add a 'hub' feature to the linear character of stream buffers, resulting in a 'hub and spoke' design to the conservation map. The functionality of this type of conservation design is extremely beneficial, especially in urban areas, as it provides variety in size, vegetation, and space of 'island' areas that maximizes habitat for various vegetation and wildlife communities, while presenting an added benefit for bicycle and pedestrian connections that provide recreation and transit .

2. Current under development, the Winmore and Carolina North parcels have some preliminarily defined open space areas that have been included in the draft map. The Board of Aldermen accepted the Horace Williams Advisory Committee report, which included a request that all land west and south of Bolin Creek be preserved as open space. A January 2005 staff presentation to the Board of Aldermen indicated that ~70% of the Carolina North land in the Carrboro planning jurisdiction was to be preserved as open space.

C. Opportunities for Alternative Conservation Initiatives

1. The Ecosystem Enhancement Program developed parcel-level preservation prioritization that may inform a more focused effort on conservation in the Town of Carrboro.
2. Creative mechanisms associated with density incentives may allow for greater preservation of upland hardwoods. This issue has been noted in previous meetings of the Environmental Advisory Board.

Additional Items Relevant to Conservation

This conservation map may be beneficial to the ongoing review and update process for the Recreation and Parks Master Plan. In the previous master plan, one goal that was reiterated in each 5-year section was “continue acquiring additional property along the Morgan Creek and Bolin Creek greenway corridors and continue developing facilities where possible”. Considerable energy has been committed to this goal in site planning, transportation planning and other activities. Prior to any action by the Board of Aldermen, it may be appropriate to consider the forthcoming recommendations in the Recreation and Parks Master Plan. A 7 July 2005 draft of the master plan prepared by HadenStanziale did not elaborate on the comments related to Bolin Creek in the previous master plan (page 10).

A second item was discovered during the conservation map development. Staff noted that Orange County is listed as the landowner for a parcel that is adjacent to Baldwin Park. This parcel (PIN 9778-97-5883; 0.2 acres) contains a segment of the creek that flows east under Broad Street and then across the Baldwin Park. While this is a small parcel, it would provide additional opportunities for enhancing Baldwin Park landscaping and stream stewardship. In addition, there is a parcel of open space in the Fox Meadow subdivision that is owned by Orange County (PIN 9870-14-9741; 5.0 acres). A transfer of these properties from Orange County to the Town of Carrboro appears to be an appropriate action.

FISCAL IMPACT

There is no fiscal impact to this agenda item.

STAFF RECOMMENDATION

Staff recommends that the Board of Aldermen 1) accept the draft map for Conservation Areas in the Upper Bolin Creek Watershed and provide additional direction to staff for any modifications, and 2) direct staff to pursue a request to Orange County Board of County Commissioners for the transfer of Orange County owned open space parcels that are in the Town of Carrboro town limits.