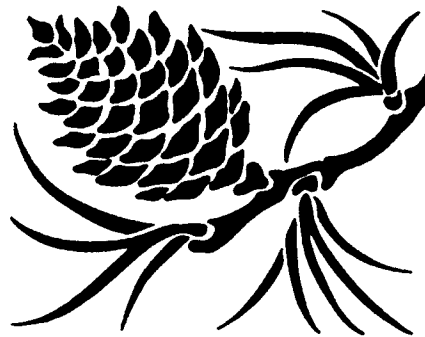


CHAPEL HILL GREENWAYS

Comprehensive Master Plan

*A Planning Guide for Future Physical Improvements
and Operational Policies*



Greenways Commission
Town of Chapel Hill, North Carolina
May 26, 1998

The Morgan Creek Watershed

Morgan Creek begins in central Orange County and flows southeast until it becomes a large stream. Near the Carrboro town limits, the creek enters University Lake, an important water source for southern Orange County.

From its outflow at the base of the University Lake dam, Morgan Creek flows east through Carrboro's jurisdiction until it flows under Smith Level Road. Once the creek passes under Smith Level Road, it enters Chapel Hill's jurisdiction.

Once inside Chapel Hill's town limits the creek flows over 4.5 miles and undergoes several dramatic transformations. From Smith Level Road to its outflow into Jordan Lake, the creek passes through three distinct sections.

The watershed is the most isolated of the major streams in Chapel Hill. Natural connections from Morgan Creek to the Town's trails north of Fordham Boulevard are blocked by high ridges and major roads. Possible trail extensions are proposed for Wilson Creek and Fan Branch trails.

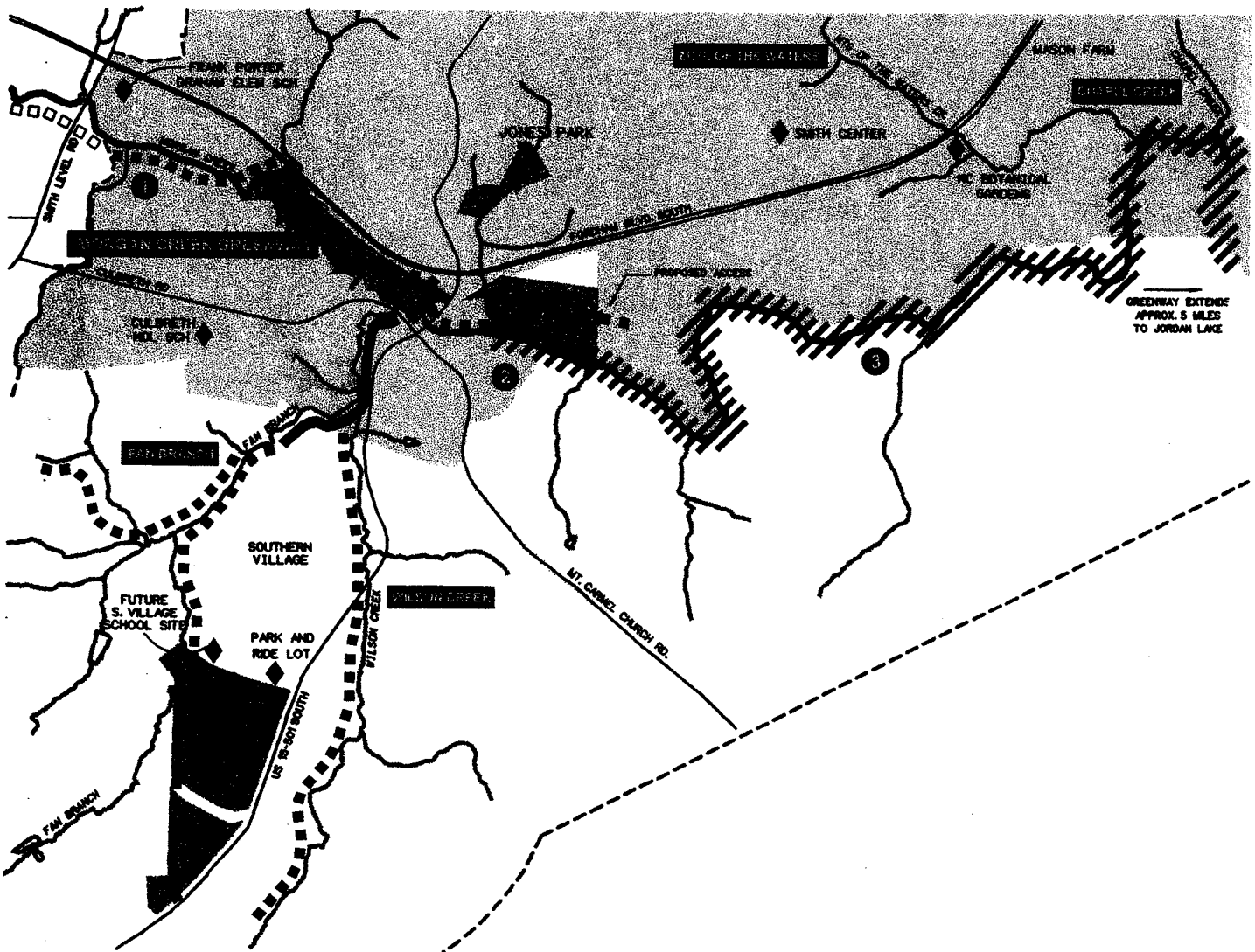


FIGURE 7
MORGAN CREEK WATERSHED

SCALE: 1" = 2280'

LEGEND

- TOWN LIMITS
- TOWN OPEN SPACE/PARKS
- PROPOSED TRAIL
- PRESERVATION AREA (NO TRAILS)
- URBAN PLANNING AREA
- EXISTING TRAIL
- PROPOSED NEIGHBORING COMMUNITY TRAIL
- GREENWAY SEGMENT
- POINT OF INTEREST

**1 MORGAN CREEK:
Smith Level Road to-Merritt Pasture**

As Morgan Creek enters the Chapel Hill Urban Services District on the east side of Smith Level Road, the stream flows through a broad flood plain, with its greatest relief being on the south bank. The greenway corridor contains an elementary school, a large apartment complex, a large single-family residential area, an extensive series of power line rights-of-way, and several undeveloped tracts of land.

Resource Protection

The Town has acquired several tracts of land along both banks of Morgan Creek. Although the environmental and aesthetic integrity of much of this property has been compromised by extensive power line construction, there remains some relatively untouched land. As development occurs in the upstream stretch of Morgan Creek, greater opportunities to acquire land and trail corridors through the requirements of the Town development ordinance will occur.

Potential for Trail Development

Once built, the Morgan Creek Trail would interconnect much of the area south of Fordham Boulevard. Citizens would be provided with safe access to Frank Porter Graham School and with trails proposed to be developed along Wilson Creek and Fan Branch. The partially constructed Fan Branch Trail would eventually lead to the new Southern Community Park at Dogwood Acres Drive, the proposed Southern Village school, and to the commercial and residential areas within Southern Village.

In an ideal situation, the west terminus of the trail would be constructed so that the entrance could provide access to both Smith Level Road and Frank Porter Graham School. In this way, residents and schoolchildren could be served by the trail, while minimizing the time pedestrians and bicyclists need travel Smith Level Road.

Although great difficulties may be encountered, the north bank of the creek could provide an excellent trail location if easements could be

provided across the Frank Porter Graham School property and the property of Kingswood Apartments. This option would allow the greatest number of people to access the trail, allow planners to reduce the number of bridges needed, and to limit the number of property owners that would have to be involved in land negotiations.

The south bank of the creek may provide the most practical route. Carrboro's current jurisdiction begins about 200 feet east Smith Level Road. If trail construction were to take place on the south bank, that construction might have to be coordinated with the Town of Carrboro. The south bank contains traces of an abandoned road which could provide a good base for a trail. The major constraints appear to be the current lack of public access, a few isolated areas with steep topography, and large meanders in the creek. A trail built along the south bank would eventually encounter existing homes and extremely steep topography. As the trail tracks eastward, it could cross to Town-owned land on the north bank.

The north bank of the corridor exhibits some steep areas and narrow cross slopes which may require the construction of retaining walls or boardwalk portions of the trail. As the trail approaches Hwy. 15-501, the banks at the meanders of the creek become rocky and extremely steep. The usable portion of the corridor has been narrowed in width by the placement of fill material required for recent lane improvements at Hwy. 15-501. A narrow, unpaved footpath could provide access through this area. Continuing under the Hwy. 15-501 bridge this Class 3 trail could follow the north stream bank to connect with the Town-owned Merritt Pasture.

A final bridge would be required to access the south bank and Culbreth Road west of Hwy. 15-501. The intersection of the trail at Culbreth Road could provide an alignment with the Fan Branch Trail located on the south side of Culbreth Road.

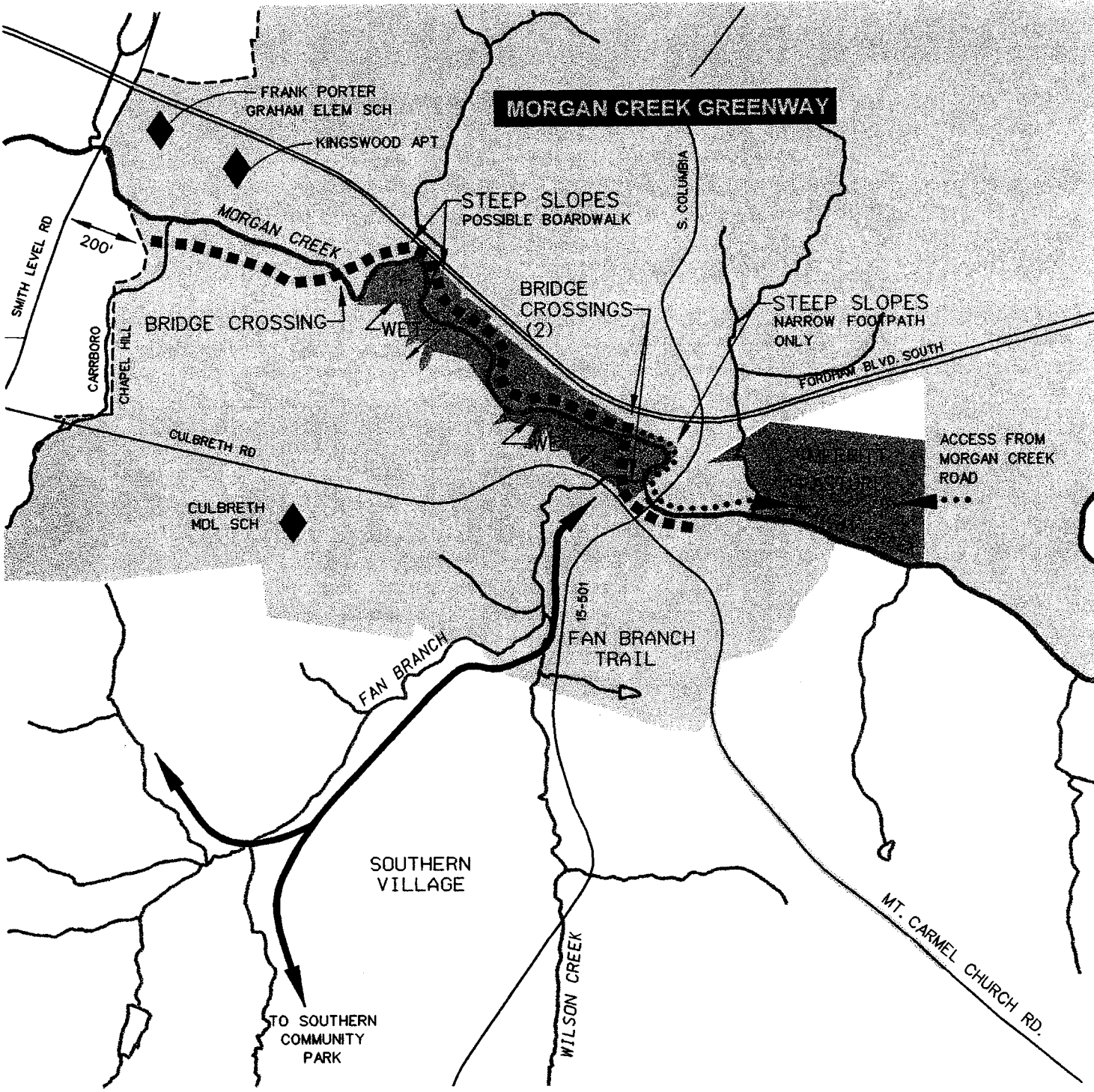


FIGURE 8
MORGAN CREEK
SMITH LEVEL ROAD TO MERRITT PASTURE

SCALE: 1" = 1200'



LEGEND

TOWN LIMITS	URBAN PLANNING AREA
TOWN OPEN SPACE/PARKS	EXISTING TRAIL
POINT OF INTEREST	PROPOSED TRAIL

Summary of Constraints for Potential Trail Development

South Bank:

- 1. An underpass at Culbreth Road, would be the safest, though most expensive method of crossing.
- 2. At least three, and possibly as many as five bridges may be required.
- 3. Access to the trail by persons living north of Fordham Boulevard may be difficult.
- 4. Land or easement acquisition would be necessary.
- 5. If the south bank is used, it may be necessary to coordinate with the Town of Carrboro to access Smith Level Road.

North Bank:

- 1. If the north bank were used, it would be necessary to coordinate the trail alignment with the Chapel Hill-Carrboro Schools and the owner of Kingswood Apartments.
- 2. The continuity of the corridor along the north bank is interrupted by the existing apartment pool facility.
- 3. Construction of the Duke Power transmission lines has negatively impacted the aesthetics of the creek corridor.
- 4. Future widening of Highway 15-501 might impact the trail corridor in ways not yet apparent.
- 5. The north bank, as it parallels Hwy. 15-501, is too narrow and has a cross slope too steep to support more than a minor footpath.

Summary of Factors Favorable for Potential Trail Development

- 1. Much land acquisition has already occurred.
- 2. The land is undulating with sporadic topographical constraints on the south bank.
- 3. There are few conflicts with established residential neighborhoods.

Recommendations

- 1. The Town should acquire as much land along Morgan Creek as possible.
- 2. Once all the needed land has been acquired, a Class 6 trail should be constructed from Culbreth Road near the Hwy. 15-501 bridge over Morgan Creek to Smith Level Road and, if possible, to Frank Porter Graham Elementary School.

- 3. The alignment of the Class 6 trail should be located to align with the Fan Branch Trail.
- 4. The possibility of a trail underpass at Culbreth Road should be explored.
- 5. A Class 3 footpath should be constructed along the north bank of the creek as it parallels Hwy. 15-501 and continues under the Hwy. 15-501 bridge to the Merritt Pasture.

2 MORGAN CREEK: Merritt Pasture to Ashe Place

After Morgan Creek passes under the Hwy. 15-501 bridge, it enters an area of Chapel Hill that has experienced a great deal of residential development. Specific tracts have also been identified as environmentally sensitive, and are listed in the 1988 "Inventory of the Natural Areas and Wildlife Habitats of Orange County, North Carolina", a study prepared by the Triangle Land Conservancy. As the stream flows east it passes into a small valley with a high ridge along the south bank. Occasionally this ridge plunges directly into the creek, forming steep and rocky banks.

Residential development on the south bank is generally located on the ridge, well above the creek. However, in several locations homes have been constructed quite near the stream. The north bank of the creek is generally lower and has more residential development near the stream bank. Little undeveloped land remains along this section of Morgan Creek.

Resource Protection

The 31-acre Merritt Pasture presents 1,500 feet of Town-owned property along this segment of the Morgan Creek corridor. The Town has acquired very little land beyond this section of Morgan Creek. The NC Botanical Garden Foundation has agreed to work with neighbors to acquire conservation easements to help protect this section of stream.

Potential for Trail Development

An informal trail exists along this section of Morgan Creek, however, it is important to note that most of the trail is in private ownership and is not available for public use. The potential for

trail development for public use is limited along this section of Morgan Creek for several reasons: existing residential development has split ownership of the corridor into many small parcels, the corridor is environmentally sensitive, and the banks are typically steep and rocky. The short section of the corridor, from Hwy. 15-501 to the foot of the steep slopes beneath Old Bridge Lane and Mallard Road, could potentially be developed for trail use.

Summary of Constraints for Potential Trail Development

- 1. Many bridges could be required.
- 2. Trail construction would be very difficult due to the sensitive nature of the vegetation and soils.
- 3. Much land acquisition would be necessary.
- 4. Steep slopes predominate in this portion of the corridor.

Recommendations

- 1. The Town should acquire land as required to provide maintenance and pedestrian access to the Merritt Pasture from Morgan Creek Road. This trail could provide an informal pedestrian link connecting the neighborhoods along the north bank of Morgan Creek to the Merritt Pasture.
- 2. No improvements are recommended within the pasture. Trail construction should terminate at the edge of the pasture.
- 3. The Town should work with the NC Botanical Garden and the residents along this section of Morgan Creek to ensure that the sensitive environment of the creek corridor is preserved. Assistance should be given when negotiating with applicants of future developments as well as with current landowners.
- 4. This greenway segment should be preserved as an unimproved Class 2 corridor.

**③ MORGAN CREEK:
Ashe Place to Jordan Lake**

Residential development exists along the north bank of Morgan Creek downstream of Ashe Place and Arboretum Drive. Beyond Bartram Drive the creek is totally within University property. The creek travels through a broad, wooded, flood plain with little evidence of human activity, except for an Orange Water and

Sewer Authority (OWASA) sewer line that parallels the creek.

Eventually the creek flows past the OWASA Wastewater Treatment Plant. Shortly after passing the treatment plant, the creek flows into the Finley Golf Course property toward the Town limits. Beyond the Town limits the creek flows through lands controlled by the U.S. Army Corps of Engineers until it empties into Jordan Lake.

Resource Protection

The land along both banks of Morgan Creek is owned by the University. See Figure 12. Also, see "Cooperation with the University of North Carolina at Chapel Hill", page 62.

Potential for Trail Development

An informal Class 2 trail currently exists along the creek, particularly on the Orange Water and Sewer Authority (OWASA) sewer easement, between Ashe Place and Finley Golf Course.

Summary of Constraints for Potential Trail Development

- 1. Currently the University wishes to preserve the area for education and research.
- 2. Access is controlled through the NC Botanical Garden.

Summary of Factors Favorable for Potential Trail Development

- 1. Should the University increase land available for trail development, most of the necessary land acquisition would already be in place.
- 2. The existing OWASA sewer easement would provide a good foundation for trail construction.

Recommendations:

- 1. The Town should continue to collaborate with the University for open space preservation in this area.
- 2. This greenway segment should be preserved as an unimproved Class 2 corridor.