

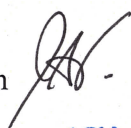




MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
ITEM #
November 20, 2008

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Jorge Valladares, Chief,
Environmental Planning Division 
Stephen Federline, Supervisor
Environmental Planning Division 

FROM: Amy Lindsey, Senior Planner 
Environmental Planning Division

DATE: November 6, 2008

REVIEW TYPE: Preliminary Forest Conservation Plan No. 0904-DGS-1
White Oak Recreation Center Mandatory Referral

LOCATION: April/ Stewart Lane
Silver Spring, MD

APPLICANT: Montgomery County Department of General Services
APPLICANT'S ENGINEER: ADTEK

Staff recommends approval of the preliminary forest conservation plan subject to the following conditions:

- 1) Required site inspections by M-NCPPC monitoring staff (as specified in Section 110 of the Forest Conservations Regulations)
- 2) Approval of the following items by M-NCPPC staff prior to DPS issuance of the sediment and erosion control permit:
 - a. Approval of Final Forest Conservation Plan consistent with the approved Preliminary Forest Conservation Plan prior to any clearing, grading or demolition on the site.
 - b. The Final Forest Conservation Plan must be prepared, signed and stamped by an ISA certified arborist and include complete details on the proposed tree protection measures.

- c. Final sediment control plan must be consistent with final limit of disturbance as approved by M-NCPPC staff.
- 3) Development and submission of a monitoring plan by the Department of General Services for review and approval by the Department of Environmental Protection prior to occupancy to monitor the maintenance and track the efficacy of the permeable paving.
- 4) Planting 3.4 acres of stream valley buffer in native forest as mitigation for 1.7 acres of encroachment and the loss of 4.75 acres of high priority forest. This planting is not in addition to any planting required by the Department of Parks.
- 5) Submittal of electronic version of signed Final Forest Conservation Plan to Environmental Planning prior to clearing or grading. Electronic files must have Environmental Planning approval signature, be in PDF format, and be in only one file.

DISCUSSION

The site for the proposed White Oak Recreation Center is a 22.09-acre portion of the Paint Branch Stream Valley Park. The proposed site is within the Paint Branch Stream Valley Park and is largely composed of forest on steep slopes with highly erodible soils. The mainstem of the Paint Branch forms the eastern boundary and an unnamed tributary flows through the center of the site from west to east. In addition, there is an intermittent stream, springs, wetlands, and their associated buffers in the north central portion of the site. This stream starts at the base of a hill of unconsolidated fill – mostly construction debris. There are 16.7 acres of high priority forest onsite and numerous large and specimen trees. The property is within the Paint Branch watershed: a Use III/III-P watershed. The proposed plan is to construct a recreation center with associated recreational facilities, including a multipurpose playing field, playgrounds, basketball courts, and a skate park.

The Board's action on the Preliminary Forest Conservation Plan is regulatory and binding. The Planning Board must act on the Forest Conservation Plan before it finalizes its recommendations on the mandatory referral.

ISSUES

Site Selection and Use

This location was chosen for use as a recreation center before the full extent of sensitive environmental features was known. Of the initial 50.33 acre site chosen for analysis, 44.48 acres is covered with sensitive environmental features - high priority forest or stream valley buffer. (see figure 1) Because the site is bisected by an unnamed tributary of the Paint Branch, with forested, steep slopes on each side, the decision was made to develop only a portion of the initial site. The portion selected is in the area of the stream valley park with the best roadway access and most available space for development. Of the final 22.09 acre site considered for development, 16.90 acres of the site is

environmentally sensitive. The 5.19 acres of potentially developable area is further constrained by being separated by intervening areas of high priority forest. The property is further encumbered by an AT&T ROW, which restricts the type of development that can occur over it and the depth of disturbance allowed. (Figure 2)

The presence of steep slopes on visibly highly-eroded soils serves to magnify the importance of retaining the existing forest. Maximizing the preservation of forest on these soils will greatly reduce the erosion potential. The forest is generally of very high quality, with a relatively small number of invasive species. Ideally, the entirety of this site should be preserved as undisturbed parkland to protect not only the water quality of the Paint Branch watershed, but the sensitive slopes and valuable forest. This site is not well suited for a recreation center with ball fields, as there is little level land and the development footprint is quite constrained.

However, it is important to recognize both the previous decisions designating this site and the great need for a recreation center to serve the local community. The White Oak Master Plan, approved and adopted in 1997, proposed this location for a recreation center. This proposal was supported by the Planning Board, and both the County Executive and Council chose this location over others. The primary motivation for choosing this location was the proximity to an underserved community. This location is also central to the community, so that more people will be able to walk to the facility.

Resolution: Environmental Planning supports the proposed development of a recreation center because of the clear need of the community for a recreation facility. The environmental impacts of the recreation facility need to be minimized and appropriately mitigated, but the development itself is necessary to serve the high density housing surrounding this site. While a less environmentally sensitive site would be preferable, both the County Council and Executive have chosen and funded the project in this location.

Stream Valley Buffer Encroachment

There are 11.0 acres of stream valley buffers on the 22.09 acre site. Due to the location and size of the buffers, there was no way to avoid encroachment into the environmental buffers and still develop a recreation center on this site. Staff prioritized the areas of stream valley buffer for preservation and potential encroachment. For example, the lowest priority environmental buffer is the area of unconsolidated fill. This area had been previously disturbed and only partially forested. The forest that is present, while of high priority for retention due to its location within the stream valley buffer, is of relatively low quality. Other areas identified for potential encroachment were ones with no steep slopes or highly erodible soils.

The total amount of stream valley buffer encroachment is approximately 1.70 acres; 1.14 acres is forested stream valley buffer. The majority of stream valley buffer encroachment is due to the one playing field proposed and the grading associated with it. Other encroachment is caused by parking, stormwater management outfalls, and a sewer connection.

On this site, the disturbance necessary to construct stormwater management outfalls and a sewer connection could be potentially very damaging to the stream health. In order to construct these structures, the slopes have to be disturbed in a linear fashion, with the width determined by the equipment used. While the disturbance itself is temporary, the effects can be long term, given the highly erodible nature of the soils and the forest that must be removed to accommodate the equipment.

Resolution: In order to minimize the environmental buffer encroachment and loss of forest, the size and program of the recreation center was decreased. Originally, four athletic fields were proposed for this recreation center. Only one playing field is being provided, sized to fit the site, and the desired “spray park” facility was deleted as well. The recreation building itself is a two story building, instead of the standard one story facility. The amount of parking has been reduced and optimized to decrease the area of disturbance as well. The footprint of this recreation facility has been minimized and arranged to avoid disturbing the environmental buffer. (See Figure 3)

The use of a partial vegetated roof and permeable paving has reduced the number of stormwater outfalls in the stream valley buffer from three to one. This also reduced the total footprint of the development, further minimizing buffer encroachment.

In order to serve this property with gravity sewer, a sewer connection through the stream valley buffer is still required. The Department of General Services did contact representatives of the adjacent apartment complex to see if it was possible to connect into sewer lines across the property. This connection would have required the use of a grinder pump. However, this alternate sewer alignment was not practicable because of access issues, so the proposed sewer connection is through the stream valley buffer to the sewer line adjacent to the unnamed tributary of the Paint Branch. The original proposal included a stream crossing, but the applicant was able to avoid this crossing through a redesign.

The above measures all minimize but do not completely avoid the encroachment into the stream valley buffer. Therefore, there is some degradation of the buffer. While there is no place directly onsite to allow for the mitigation of the buffer encroachment, there are areas of stream valley buffer in the remainder of Paint Branch Stream Valley Park where forest could be planted as mitigation. Generally, a minimum 2:1 ratio is required to mitigate for buffer encroachment, which would mean a forest planting area of 3.40 acres. The 3.40 acres of planting is part of the forest planting requirements required by the Department of Parks.

Increase in Impervious Surfaces

While this property is not within a Special Protection Area and therefore not subject to an impervious limit or Water Quality Plan, the amount of impervious surfaces is still an important contributor to the negative environmental effects of the proposed development, particularly in the temperature-sensitive Use III Paint Branch watershed. Currently, these

parcels of parkland are developed with 4 single family houses and the ruins of two others. The proposed development will greatly increase the level of imperviousness on this property.

In this situation, the increase of imperviousness has three main effects on the environment. The first is the loss of area for groundwater recharge. Groundwater recharge is an important component in both water quality and stream baseflow maintenance. The second consequence of the increase in impervious surfaces is the accompanying increase in surface stormwater runoff. All surfaces have some degree of runoff, but impervious surfaces produce a greater runoff volume, velocity, and temperature than a natural surface. The erosive nature of water is increased with an amplified volume and velocity of flow. On steep slopes with erodible soils, already clearly prone to soil displacement, this increase could be extremely damaging. The third negative effect of the increased imperviousness is the decrease in water quality due to pollutants contained in the runoff.

The Department of Permitting Services has approved a stormwater management concept, dated 10/21/2008. While an important component of the development process, stormwater management does not completely negate the effects of development or fully offset the surface runoff from impervious surfaces. Stormwater management is designed to reduce the volume and velocity of surface water runoff, as well as treat the water for quality and provide areas for groundwater recharge. However, while its goal is to buffer the effects of development on the natural environment, stormwater management cannot fully offset the negative impacts from runoff under all storm frequencies.

Resolution: The area of imperviousness associated with this project has been reduced through the initial reduction of program elements: 0.13 acres of existing asphalt drive is being removed from the site. Porous concrete is being used for most of the drive aisles and parking for stormwater controls. A total of 1.29 acres of porous concrete will be installed instead of traditional concrete and/or asphalt. In addition, a vegetated green roof will cover part (0.41 acres) of the recreation center building. While these measures do not reduce the proposed imperviousness for the project, they will greatly reduce the need for runoff control. A maintenance schedule and monitoring system should be worked out with the Department of Environmental Protection to ensure that these systems function properly.

Loss of High Priority Forest

There is 16.70 acres of forest on the site; all of it is rated as a high priority for retention. There are 10.68 acres of forest within environmental buffers. The forest serves a number of functions on this property. Not only does it help to preserve water quality through the traditional coverage within stream valley buffers, it also serves to reduce the erosion on the steep slopes. The displacement of soil due to forces of water and wind will be greatly increased without the forest to protect and hold the highly erodible soils. The total amount of forest removed for this development is 4.75 acres, including the loss of 1468 inches of large tree caliper.

Resolution: The amount of forest lost was minimized by reducing the footprint as described under “Stream Valley Buffer Encroachment”. In addition, the geothermal wells, initially proposed to be located behind the recreation center, were relocated underneath the parking lot. This allowed additional forest to be saved on the steep slopes and highly erodible soils. The forest planting required as mitigation for stream valley buffer encroachment also serves to mitigate for forest lost.

Removal of Construction Fill

There is an approximate ¾ acre area of unconsolidated fill upon the property that will need to be removed or stabilized through the development of this site (see figure x). The area of fill is located at the head of the intermittent stream, where wetlands have recently been identified. This location is where the one playing field will be built. While numerous geotechnical borings have been taken on this site, none were taken in this area. Thus the composition, depth, and exact area of the fill is not known.

Resolution: The Department of Permitting Services has a Complex Soil Review Process that works with applicants to develop appropriate methods for stabilizing and/or removing fill. The location of the fill in the stream valley buffer, directly adjacent to the AT&T ROW, complicates matters, as disturbance should be minimized. However, as it is a playing field being developed in this area - not a building, the structural requirements should be reduced. The Department of General Services should meet with the Department of Permitting Services as soon as is practical to begin discussions.

REGULATORY FRAMEWORK

Environmental Guidelines

The applicant submitted and received approval of a Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) number 420081570 on April 10, 2008. The NRI/FSD was revised and approved on October 17, 2008 to show the wetlands identified by the US Army Corps of Engineers. The site is not within a Special Protection Area or Primary Management Area.

Forest Conservation

This property is subject to the Chapter 22A Montgomery County Forest Conservation Law, and a Forest Conservation Plan has been submitted for approval. There are 16.74 acres of existing forest: 4.75 acres of forest will be removed, and 11.99 acres of forest will be retained. No easement will be placed on the property but the area will be maintained as forest and not tree cover. There is no planting requirement for this property based solely on Forest Conservation Law.

The Forest Conservation Plan covers the entire 22.2 acres of parkland, not just the area of the site that will be used as the recreation center. This means that if future disturbance is necessary on these parcels of parkland, it will need to be in compliance with the approved forest conservation plan, or may necessitate amendment and Planning Board approval. This includes activities such as removal of the remaining houses, stream restoration work, or the removal of the fill that may require removal of an additional 5000 square feet of

forest.

RECOMMENDATION

Environmental Planning recommends approval of the Preliminary Forest Conservation Plan with the conditions above.

Figure 1

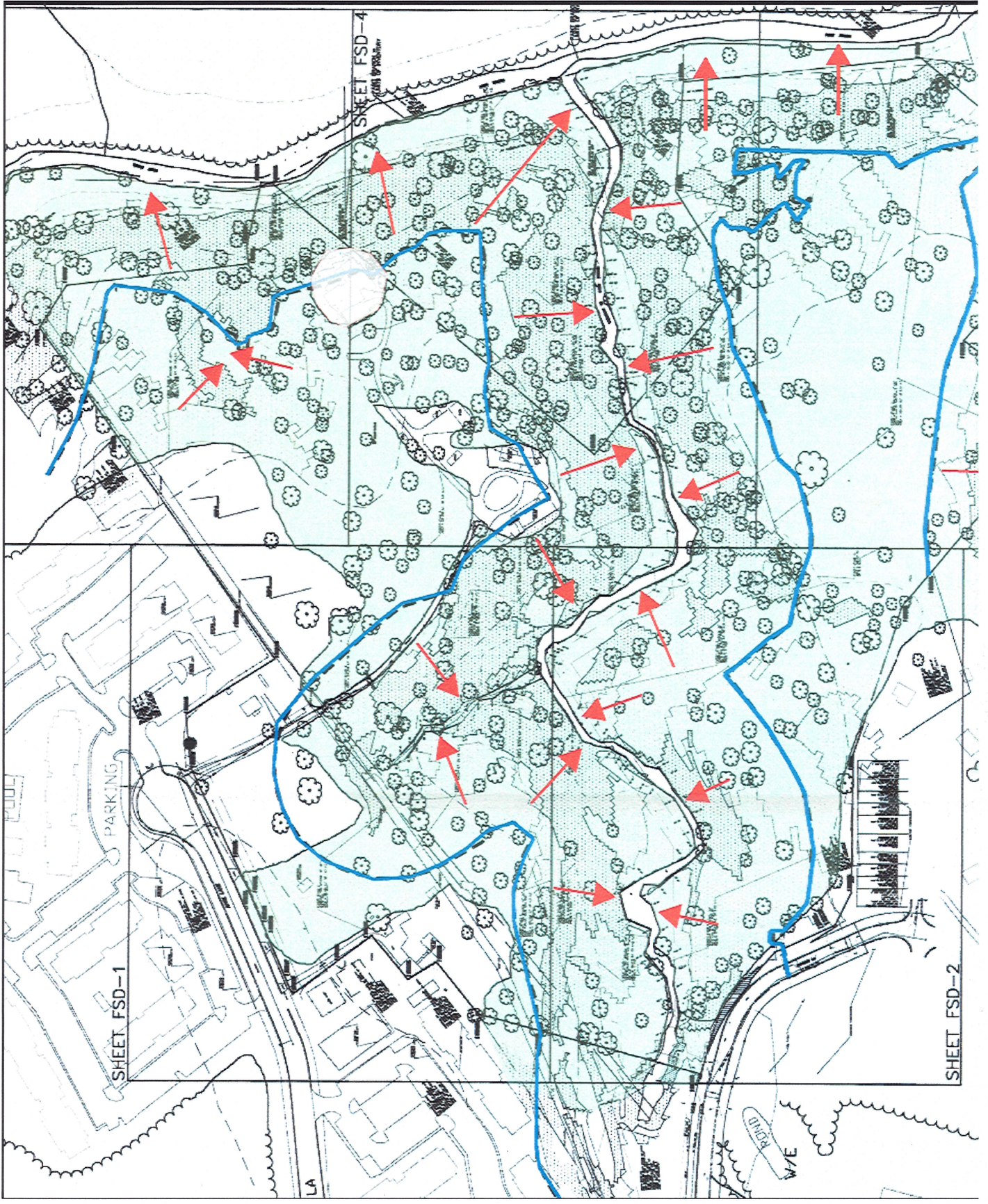


Figure 2

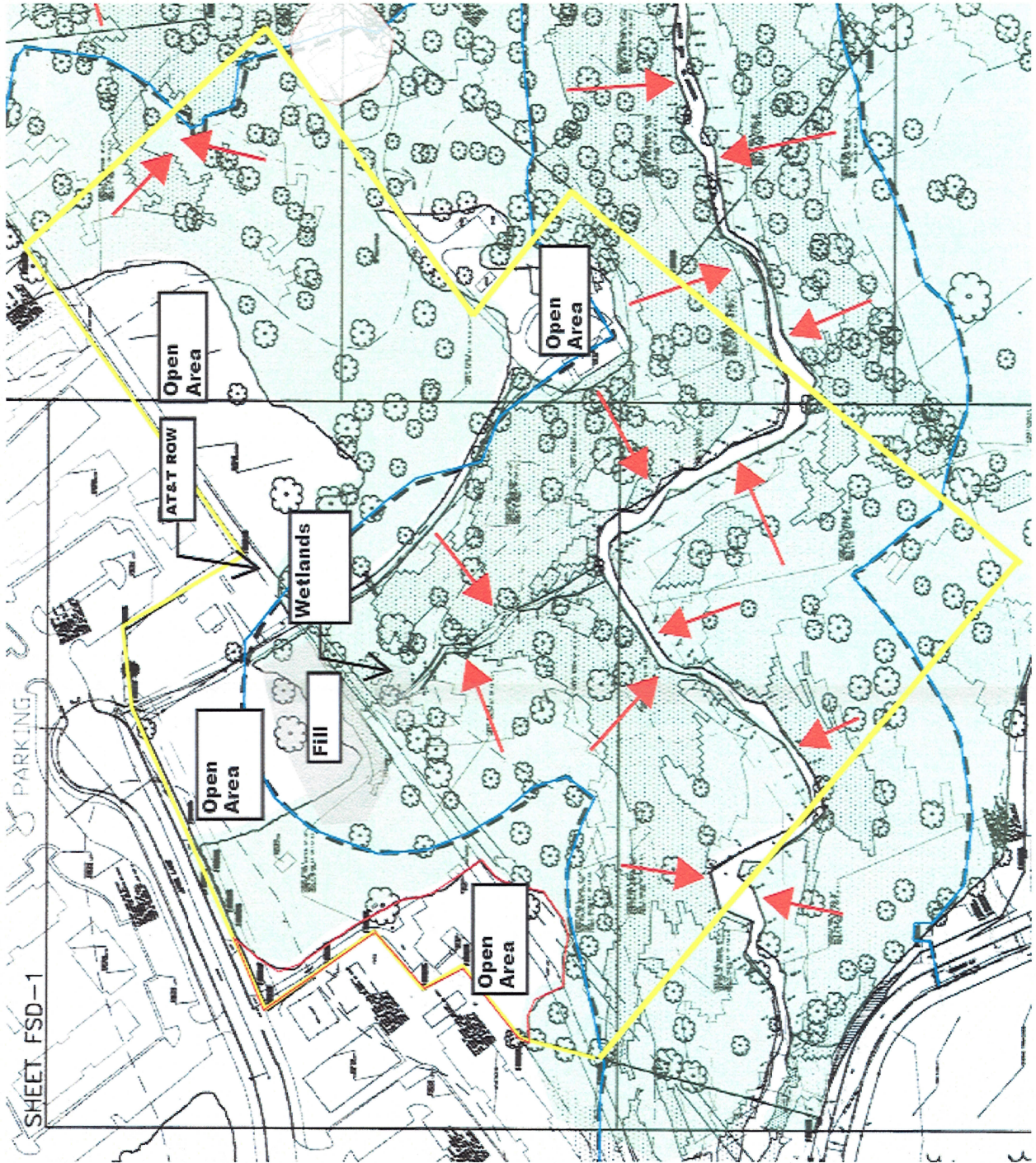


Figure 3

